

Informal Discussions  
**Proposed 2010 Rate Adjustments**  
*Pick-Sloan Missouri River Basin Program*  
*And*  
*Loveland Area Projects*

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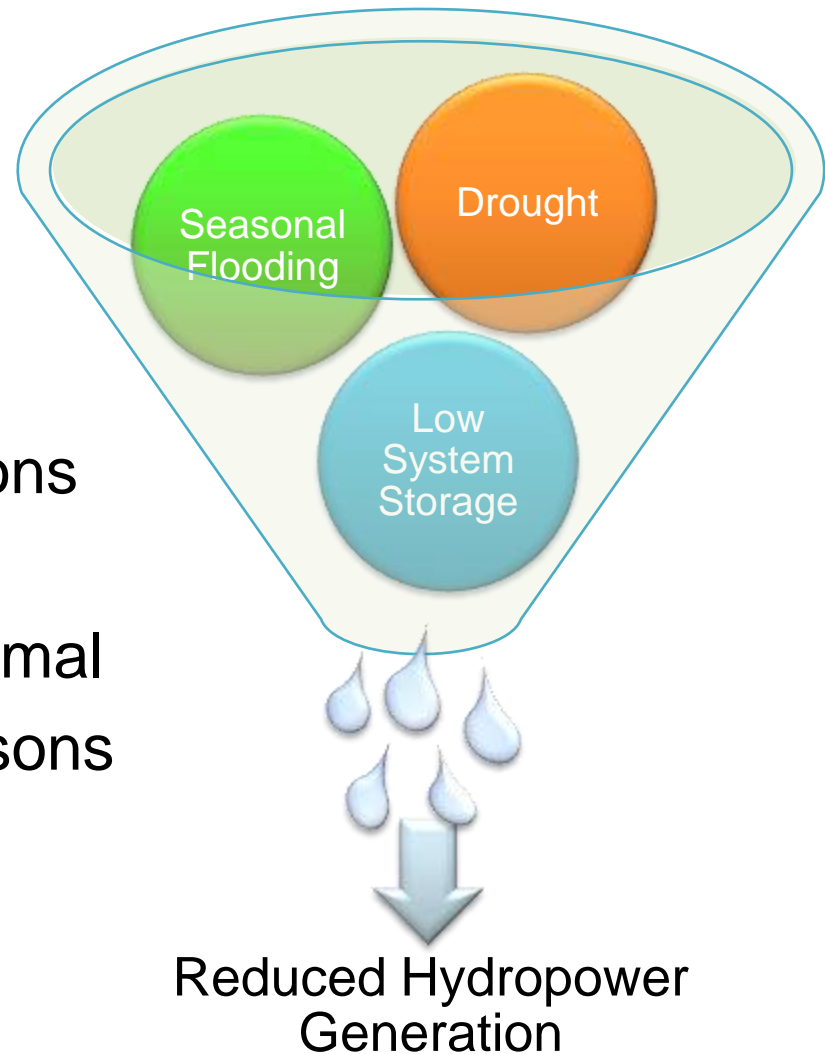
April 15 & 16, 2009

- Regional Drought & Seasonal Flood Conditions
- Purchase Power
- Repayment
- Rate Components
- P-SMBP-ED
  - P-SMBP-ED Rate Design
  - P-SMBP-ED 2010 Rate Proposal
- LAP
  - LAP Rate Design
  - LAP 2010 Rate Proposal
- Rate Process Schedule
- Contact Information
- Discussion

# Regional Drought & Flood Conditions

# Generation Impacts

- 8 years of Drought Conditions
- Seasonal Flooding
- System Storage Below Normal
- Shortened Navigation Seasons
- Wildlife Protection/Support



4/7/09 Missouri River Water Management Monthly News Release

## Snowpack & Runoff

- April 1st mountain snowpack is 107 percent of normal
- Normally, 96 percent of the peak accumulation has occurred by April 1<sup>st</sup>
- Current forecast for runoff 28 MAF, 113 percent of average

## Drought

- 2009 Annual Operating Plan contains continued drought conservation measures
- Reservoir storage levels are below normal

## Navigation

- 2009 navigation season opened at St. Louis, MO, on April 1st
- Due to low storage, only minimum service flow support will be provided
- Forecasts show that the navigation season may be shortened up to 16 days
- Final decision on season length will be made following the storage check on July 1st

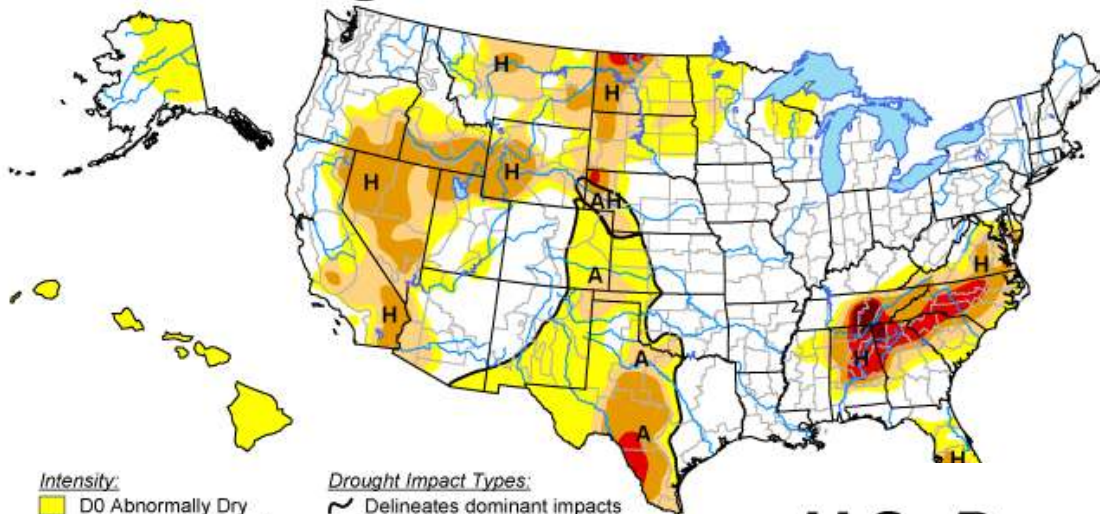
## Generation

- Six main stem power plants generated 384 million kilowatt hours (kWh) of electricity in March only 69% of normal because of low storage levels and reduced releases from the dams.
- Total energy production for the 2009 water year is forecast to total 6.9 billion kWh, compared to the average of 10 billion kWh.

# U.S. Drought Monitor

March 11, 2008

Valid 8 a.m. EDT



## Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

## Drought Impact Types:

- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



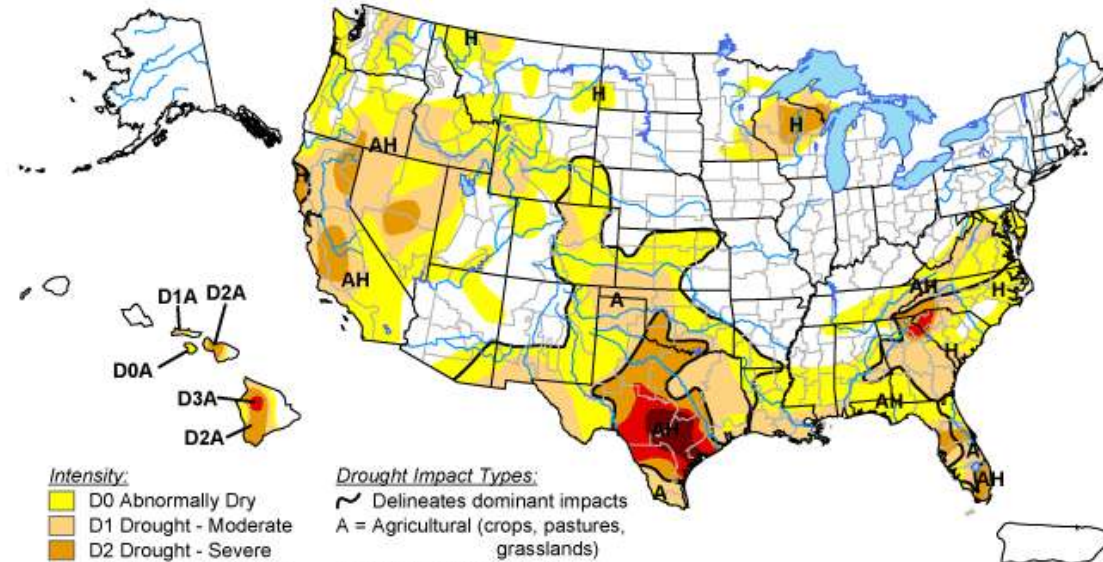
Release

Author: Brian Fucl

# U.S. Drought Monitor

March 10, 2009

Valid 8 a.m. EDT



## Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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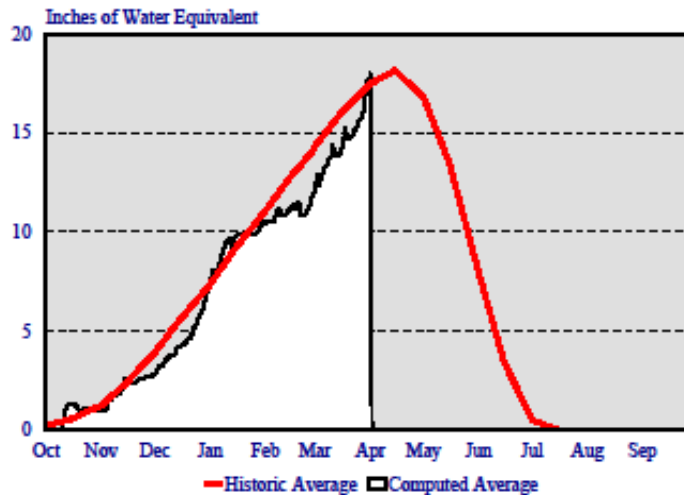


Released Thursday, March 12, 2009

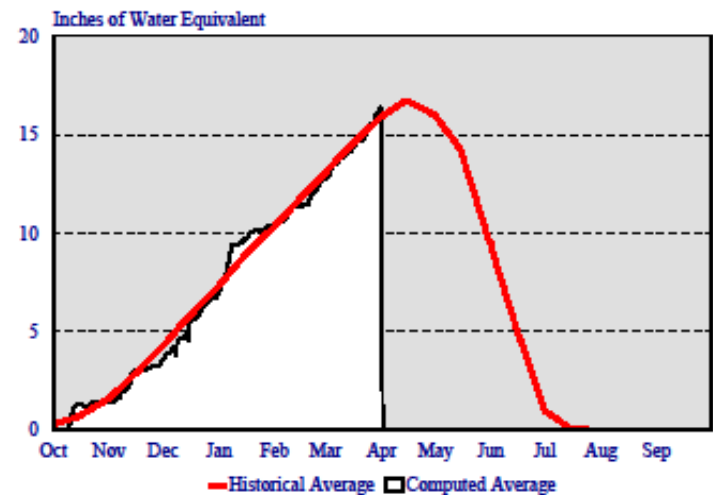
Authors: Michael Brewer/Liz Love-Brotak, NOAA/NESDIS/NCDC

# Missouri River Basin Mountain Snowpack Water Content 2008-2009

*Total Above Fort Peck*



*Total Fort Peck to Garrison*



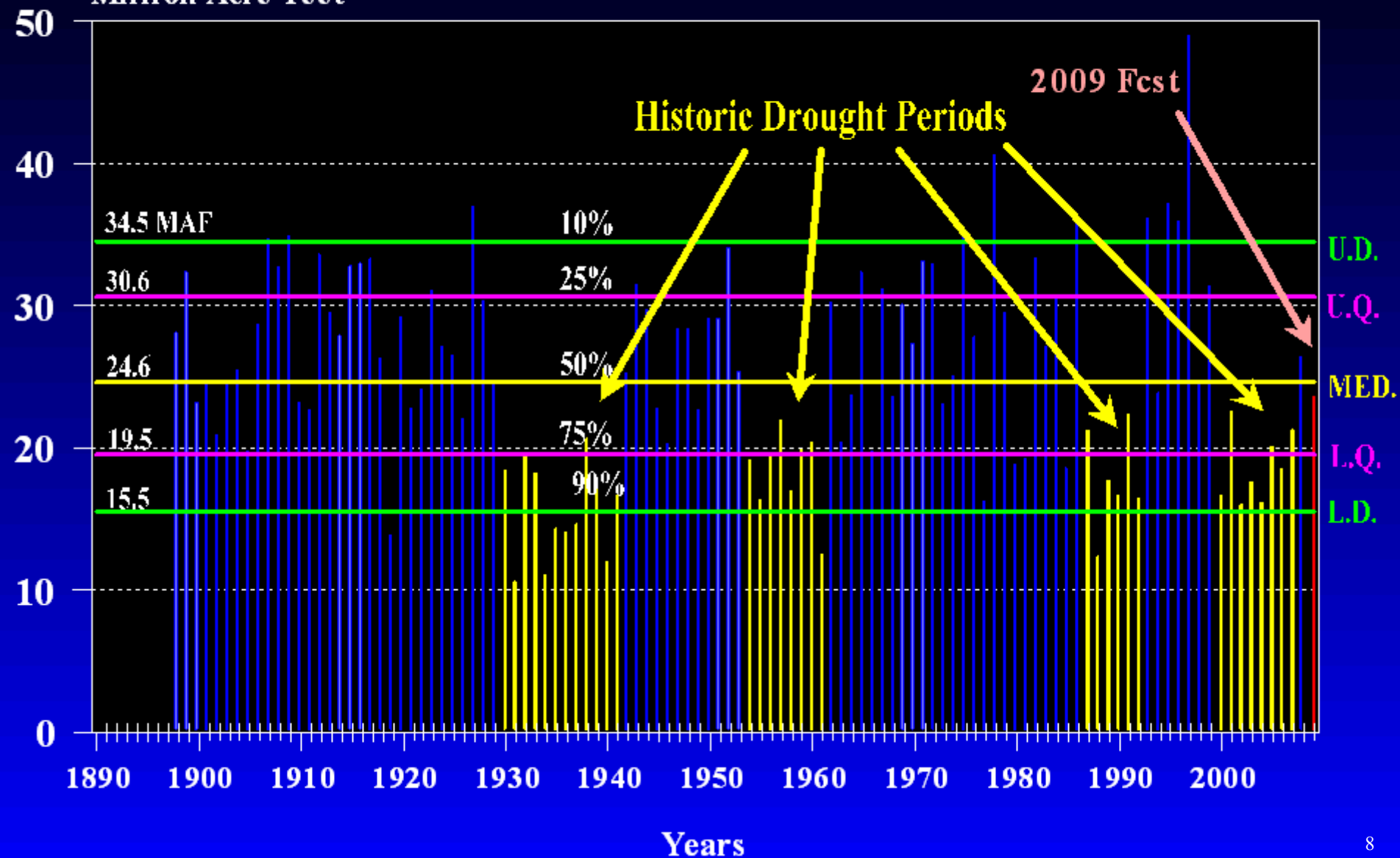
Missouri River basin Mountain Snowpack normally peaks near April 15.  
Normally 96 percent of the peak accumulation has occurred by April 1.

April 1, 2009

Provisional data subject to revision.

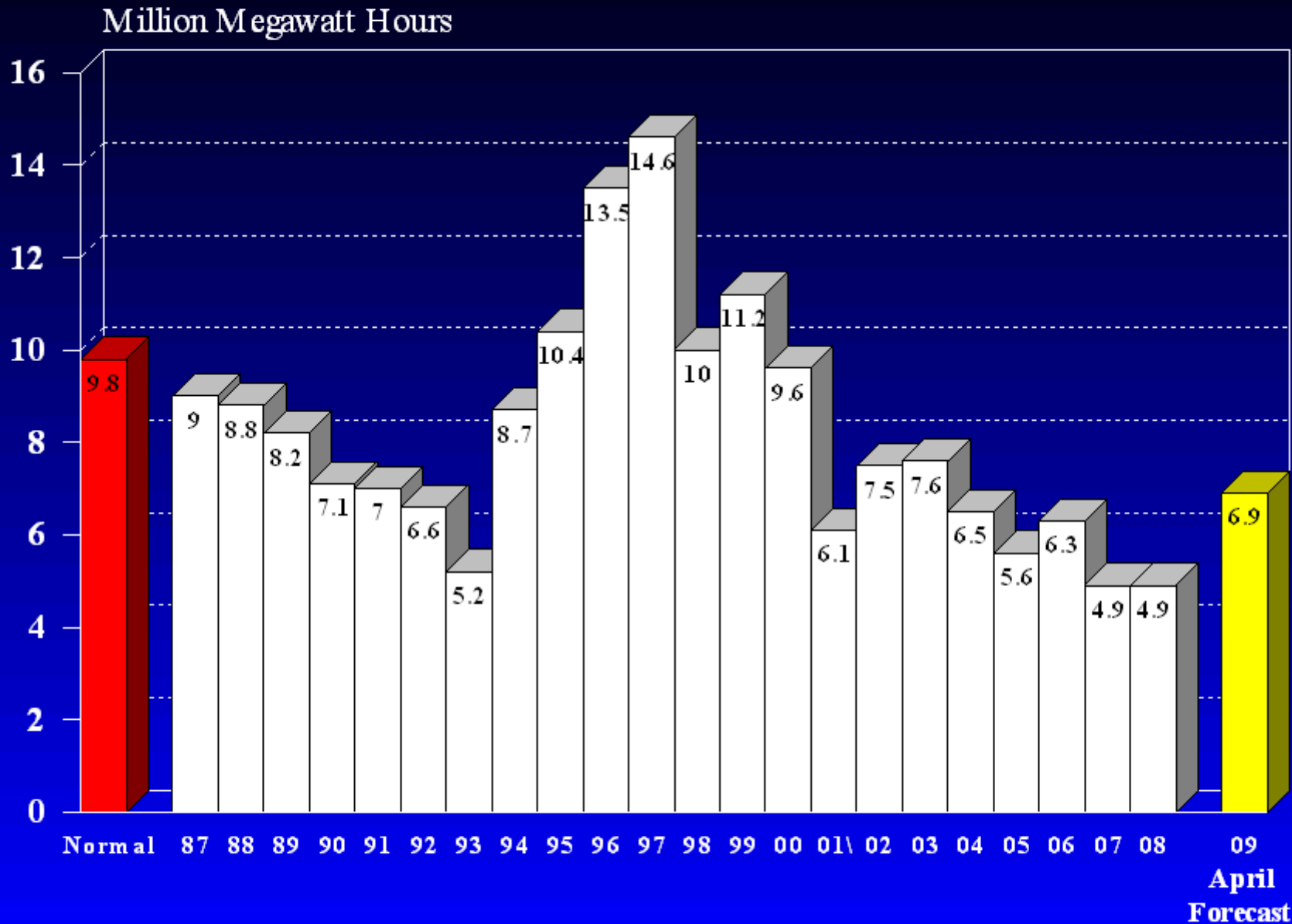
# Missouri River Mainstem Annual Runoff at Sioux City, Iowa

Million Acre-Feet

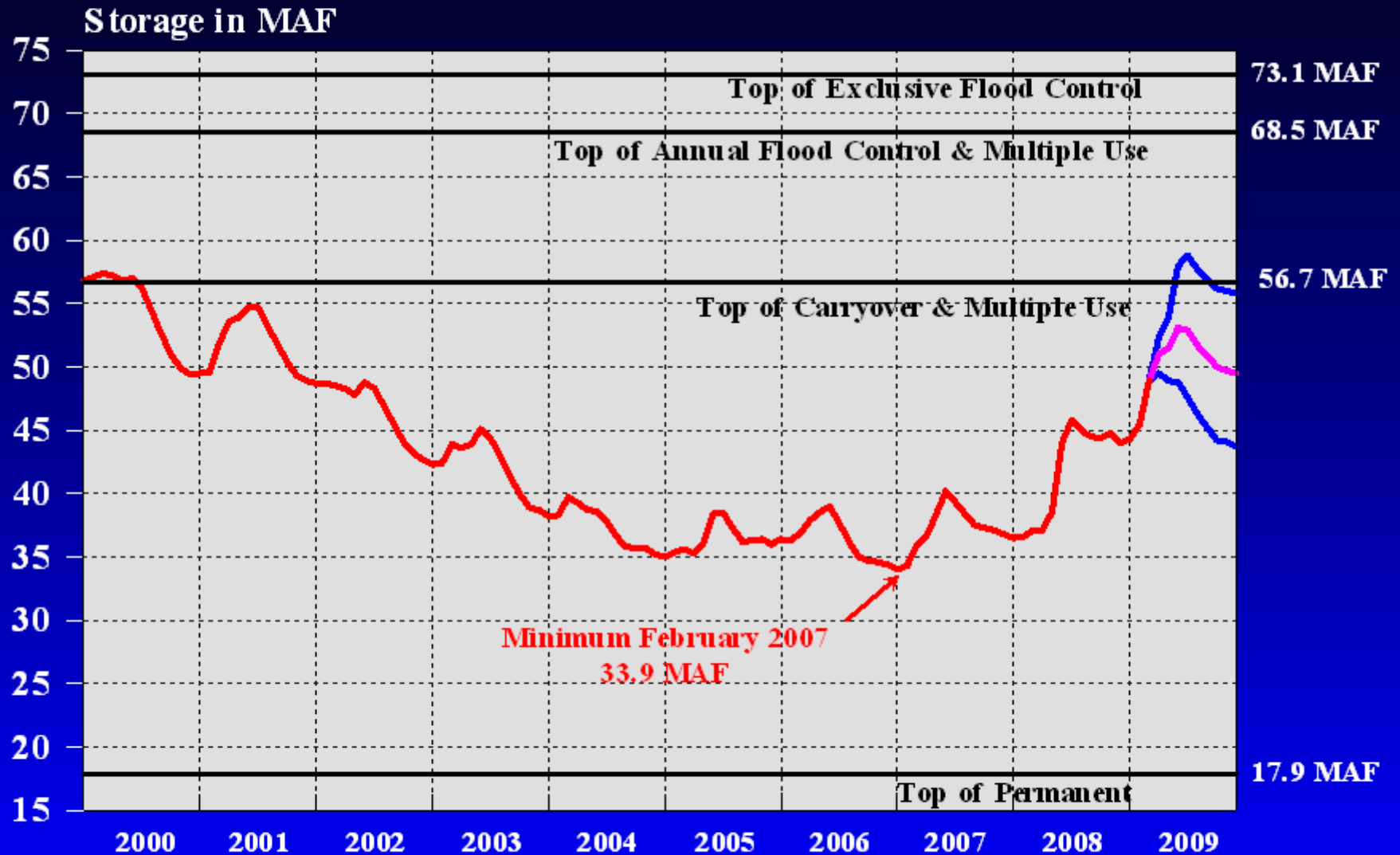




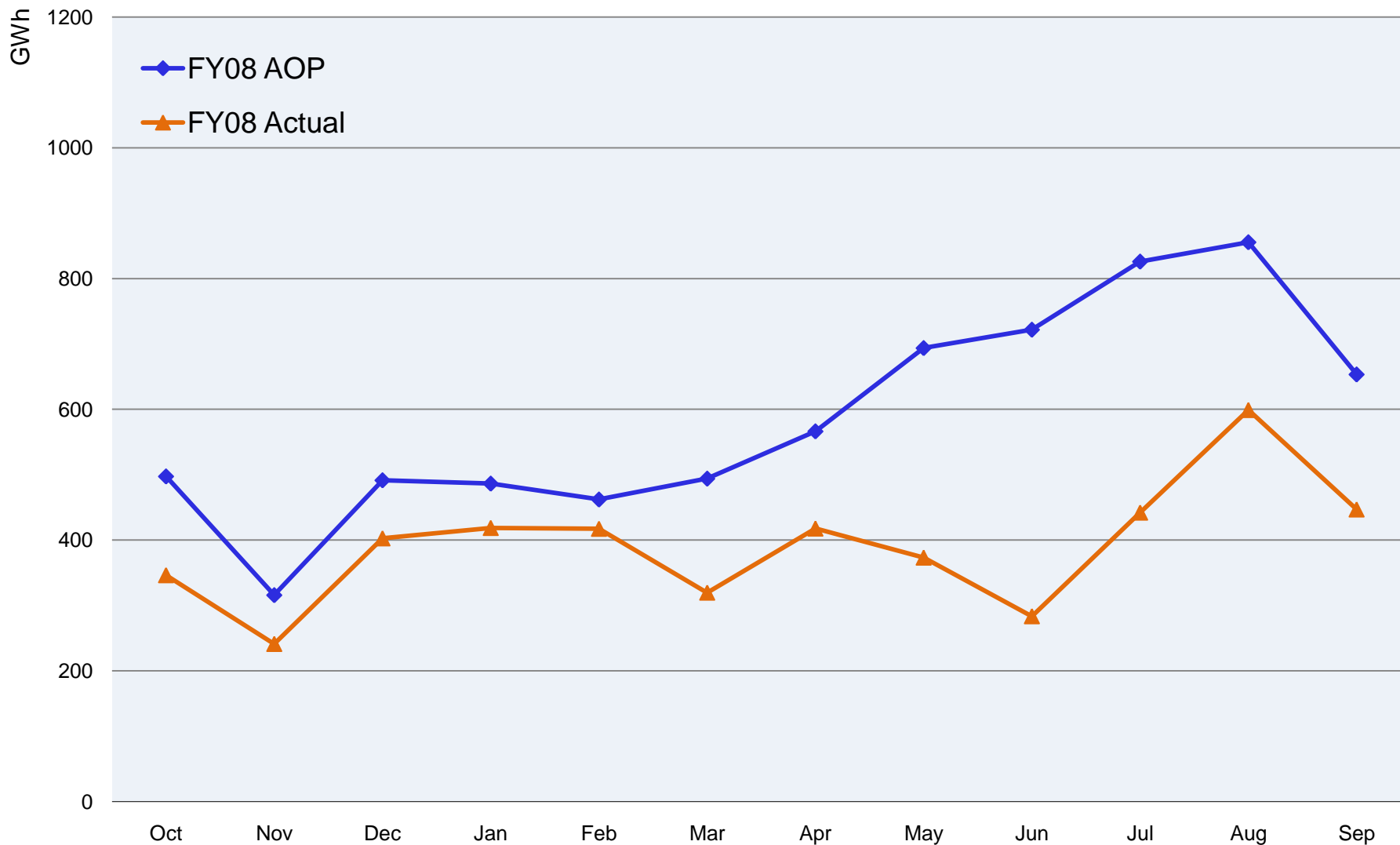
# Mainstem System Generation



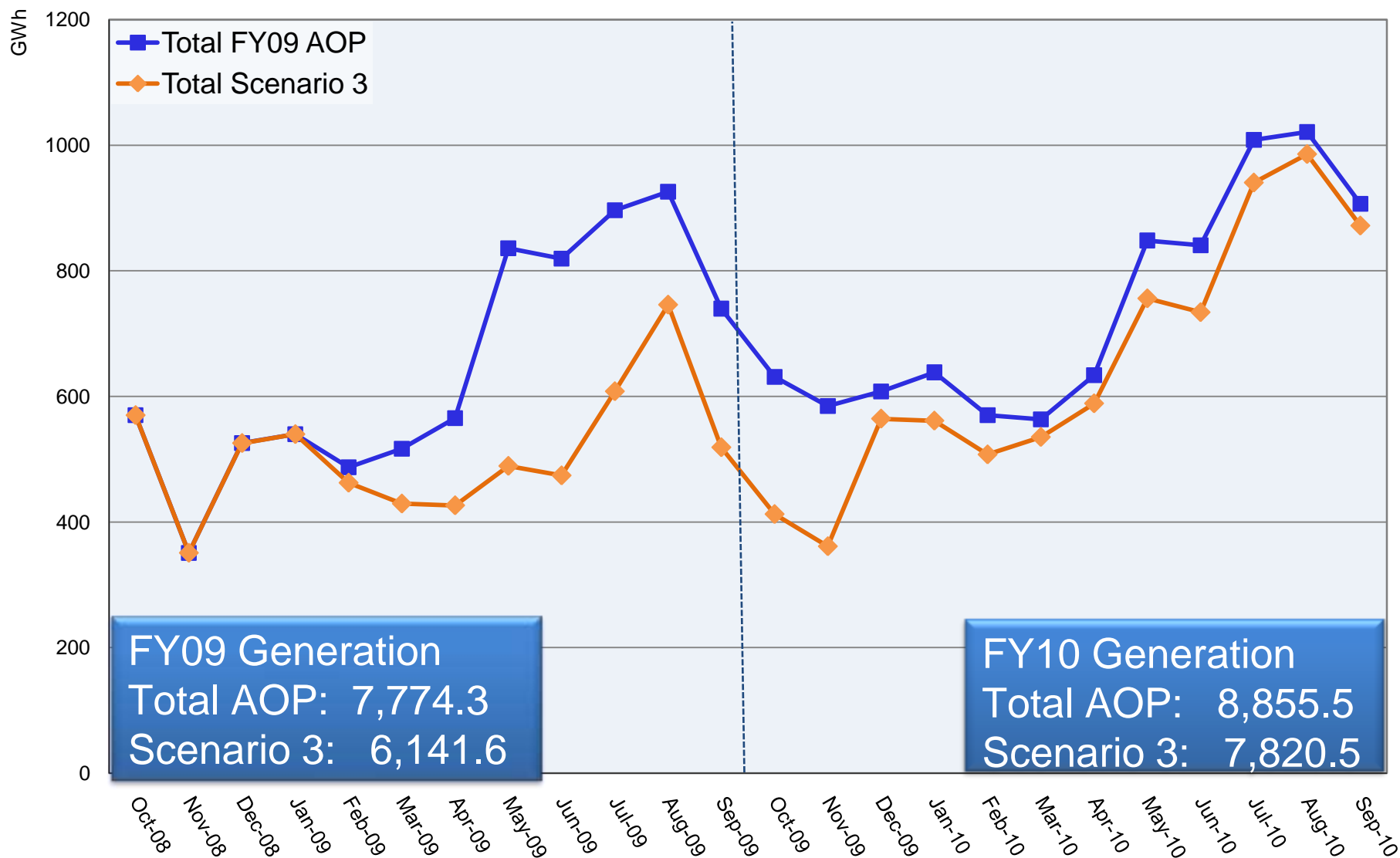
# *Missouri River Mainstem System Storage 2000-2009*



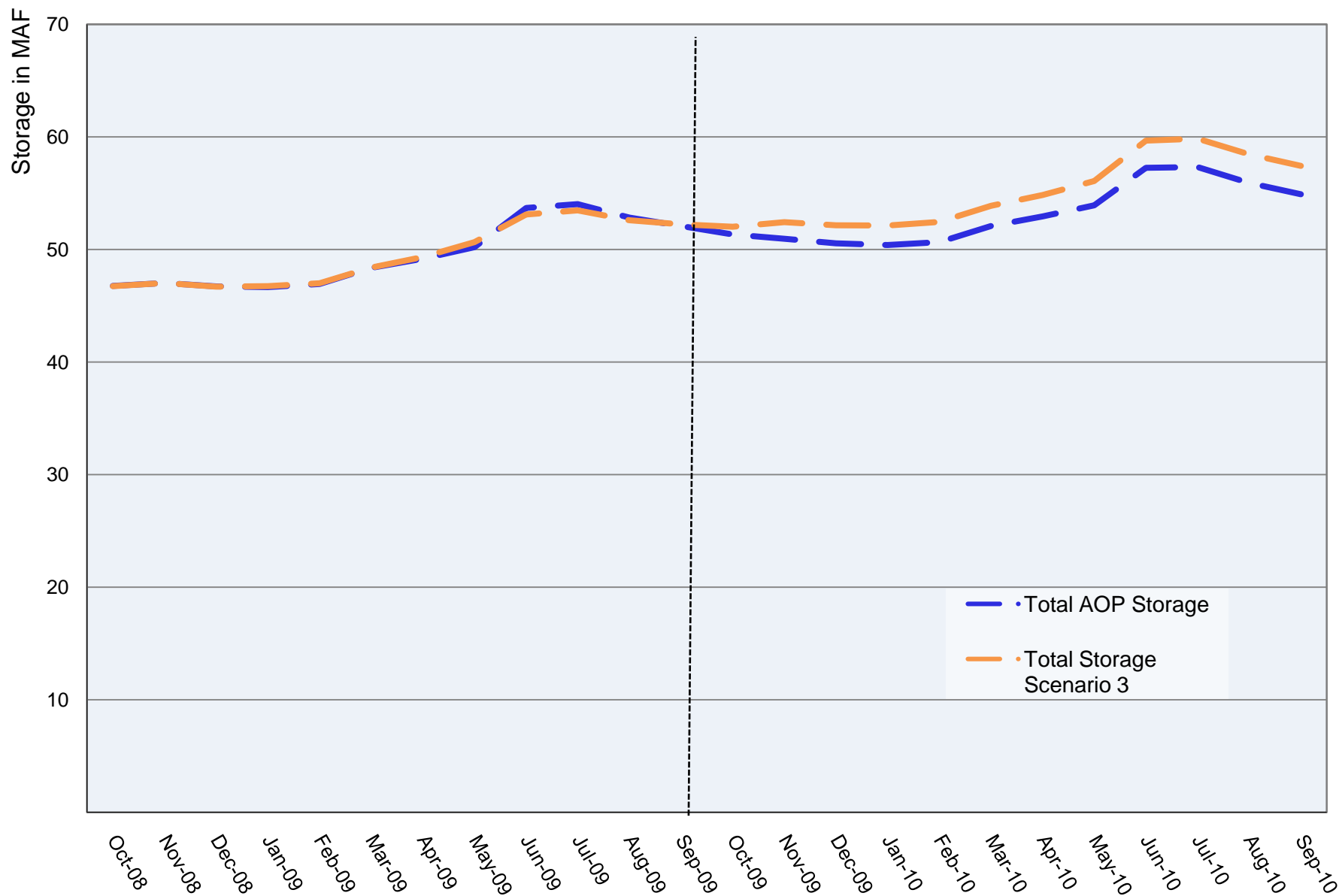
# 2008 COE Generation



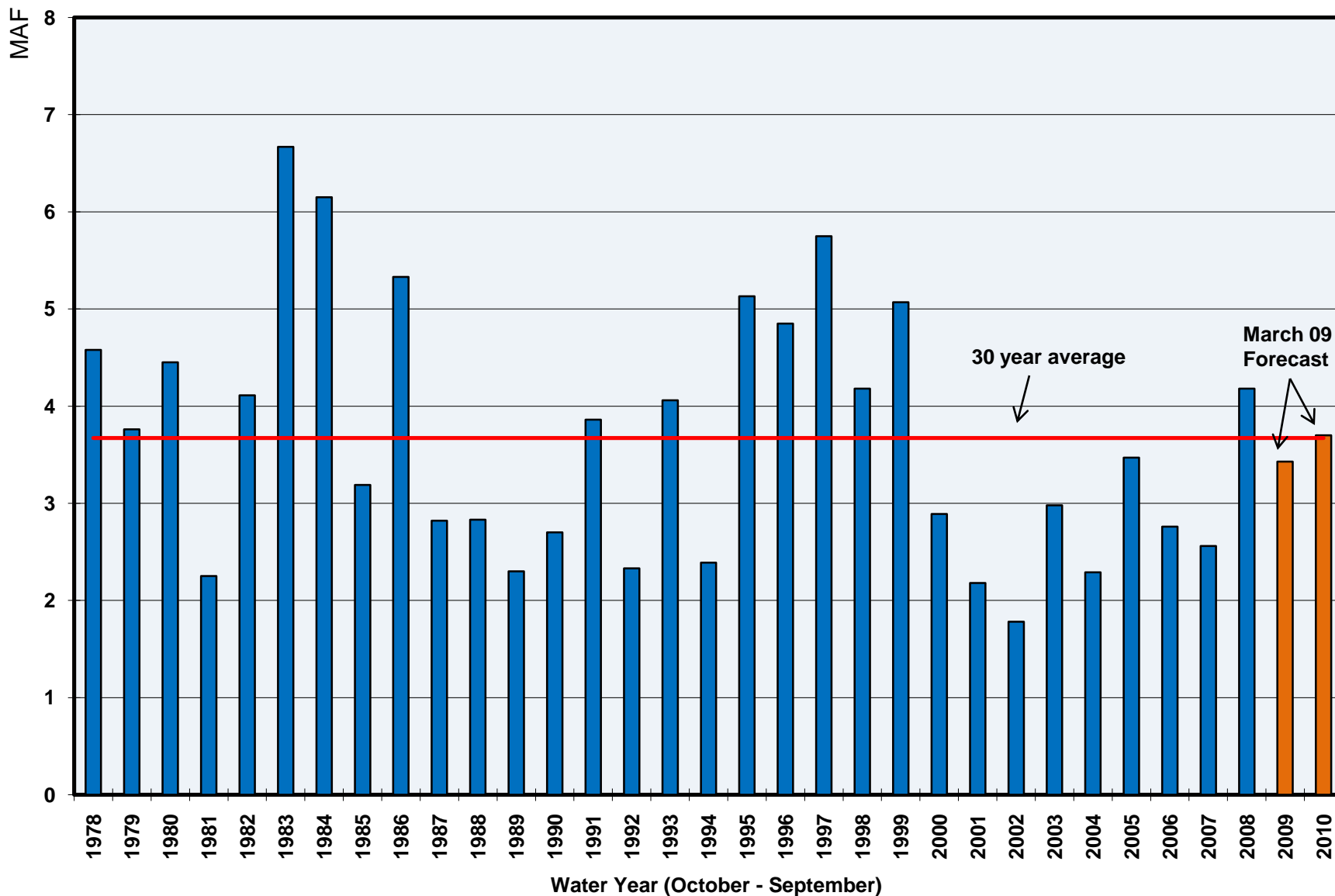
# FY09 - FY10 Total COE & BOR Generation



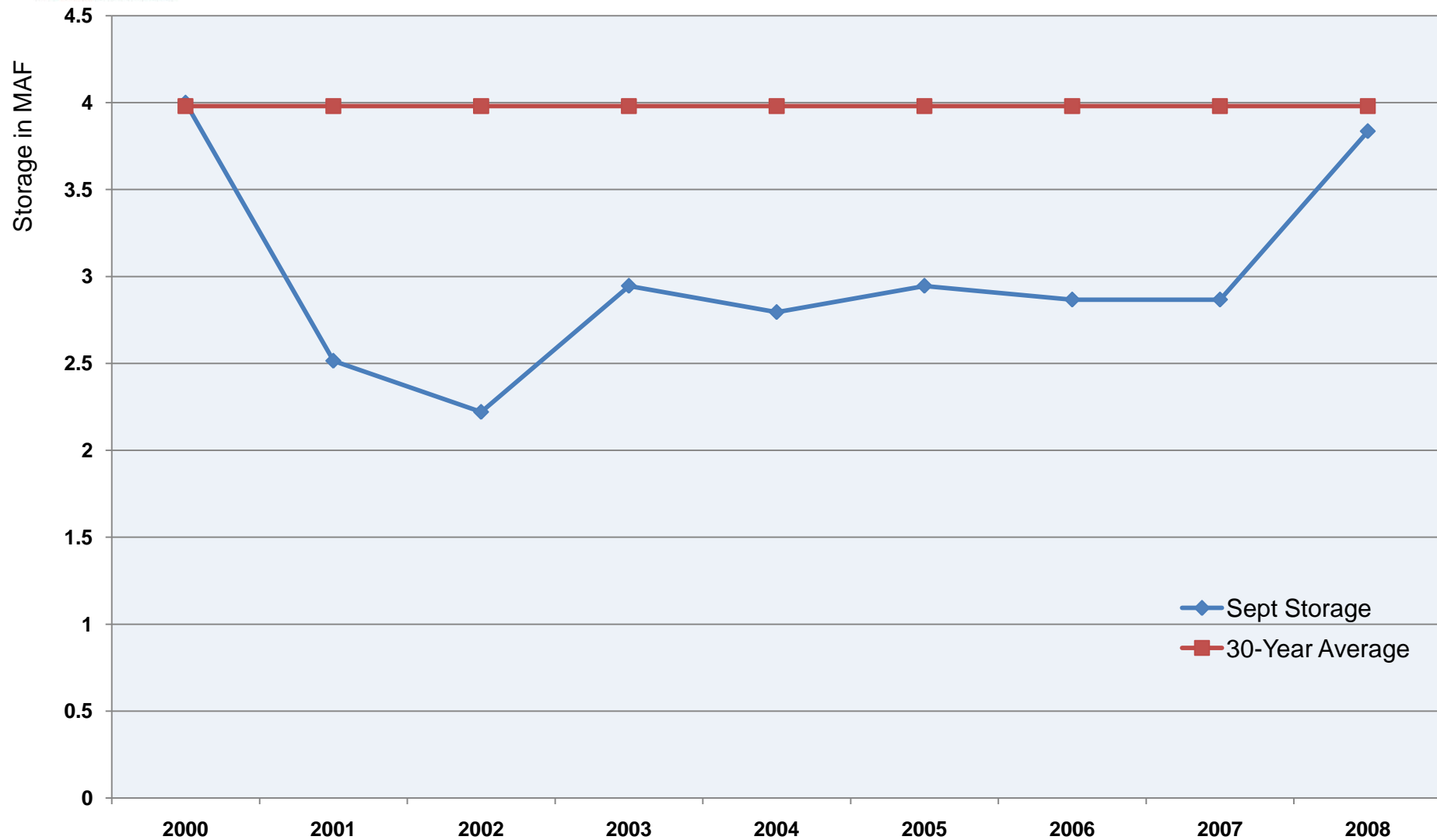
# FY09 - FY10 COE & BOR Storage Scenario 3



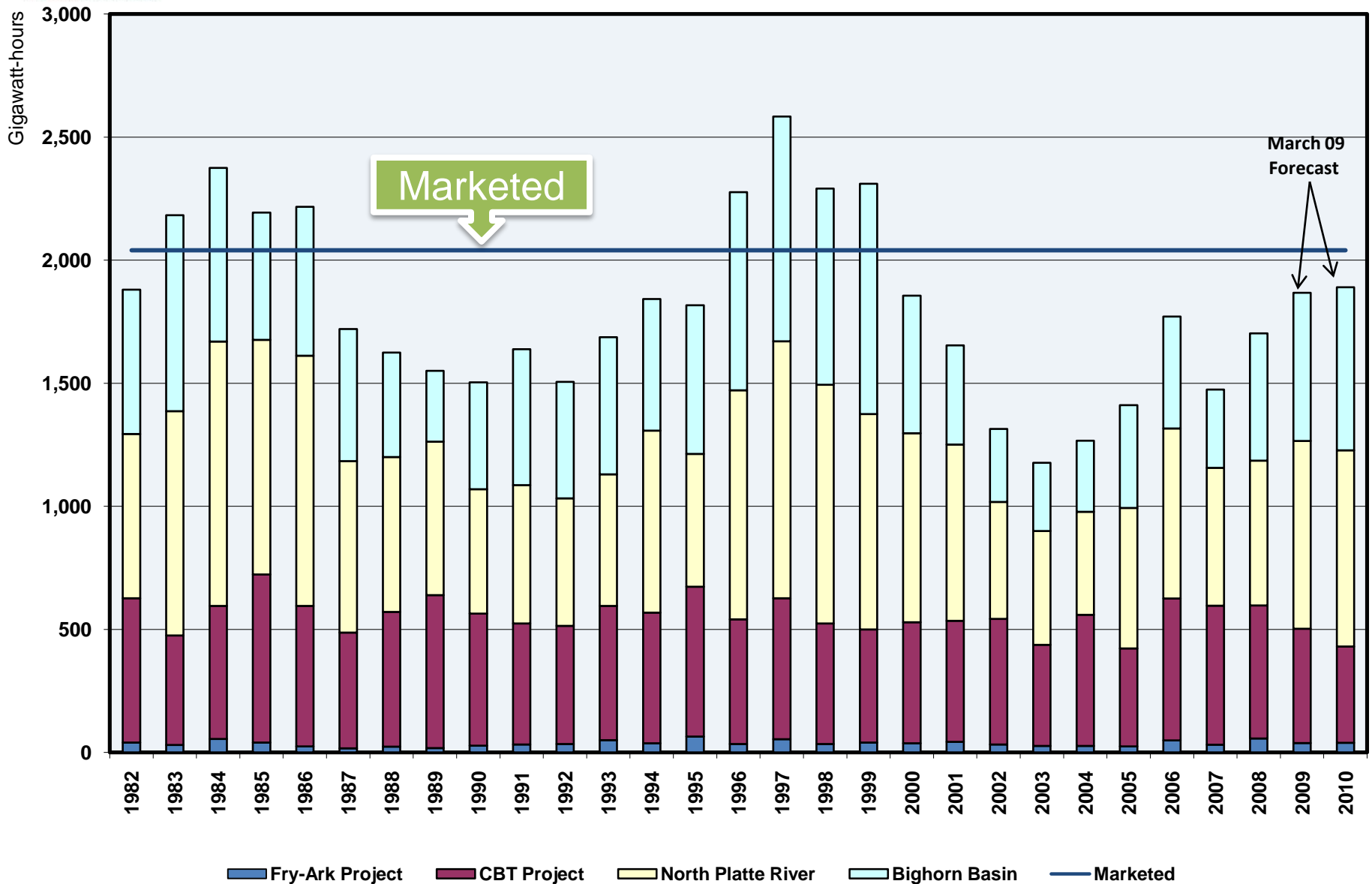
# Annual LAP Reservoir Inflow with Projected FY09 & FY10



# LAP Storage 2000-2008

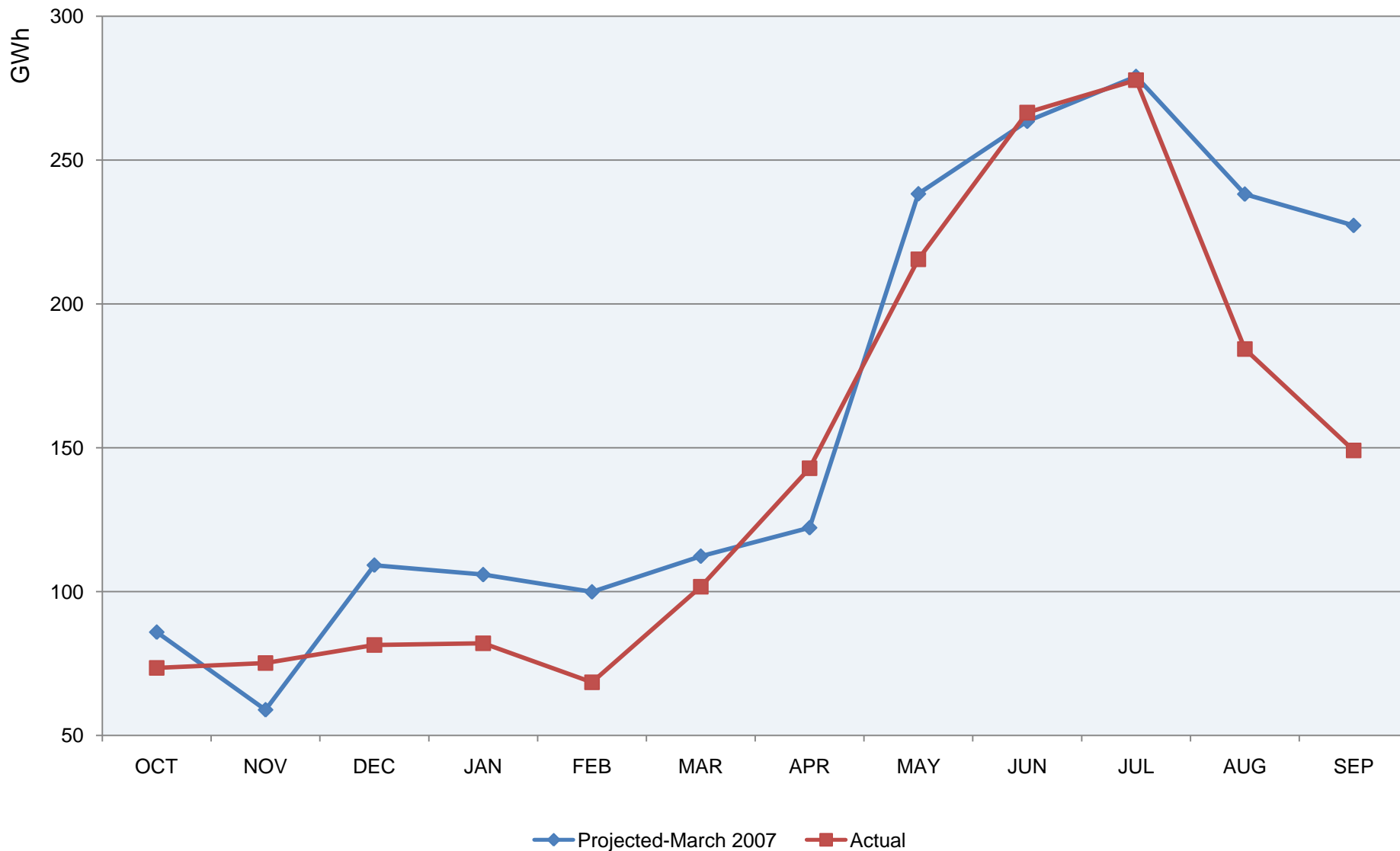


# LAP Gross Generation at Plant with Forecasted FYs 09-10





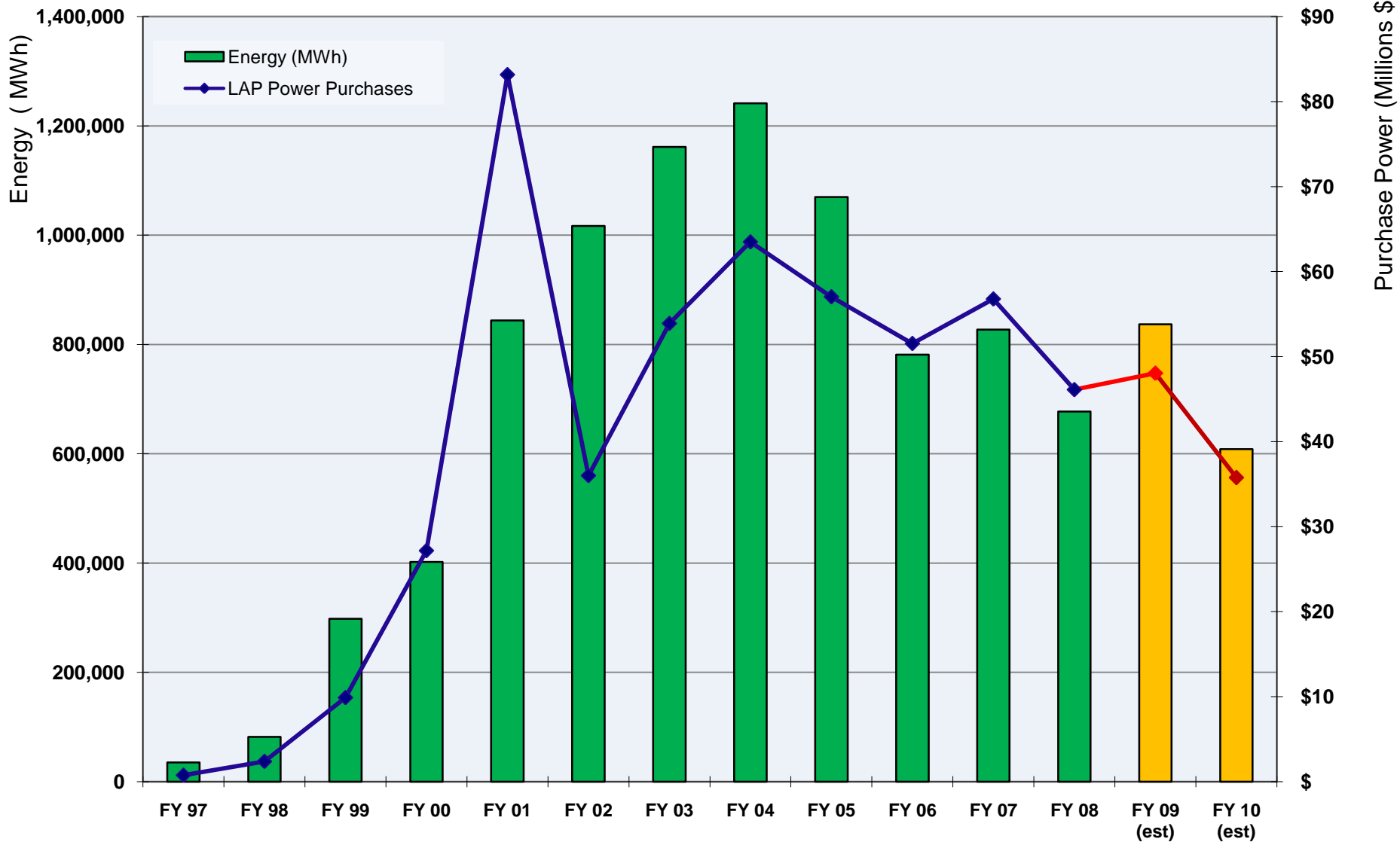
# LAP FY08 Generation Forecast vs. Actual



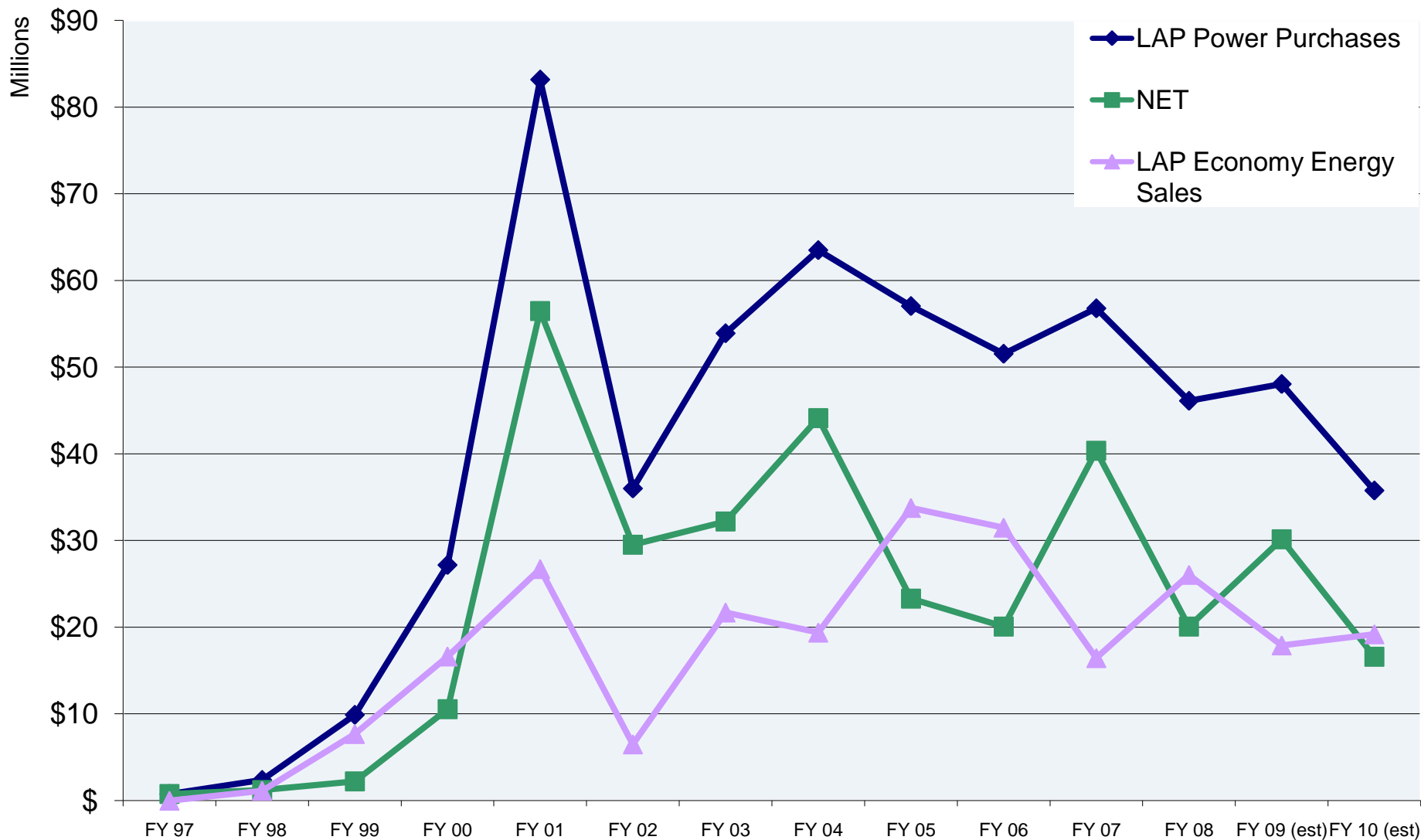
# LAP

## Purchase Power Expense

# LAP Purchases Energy and Expense

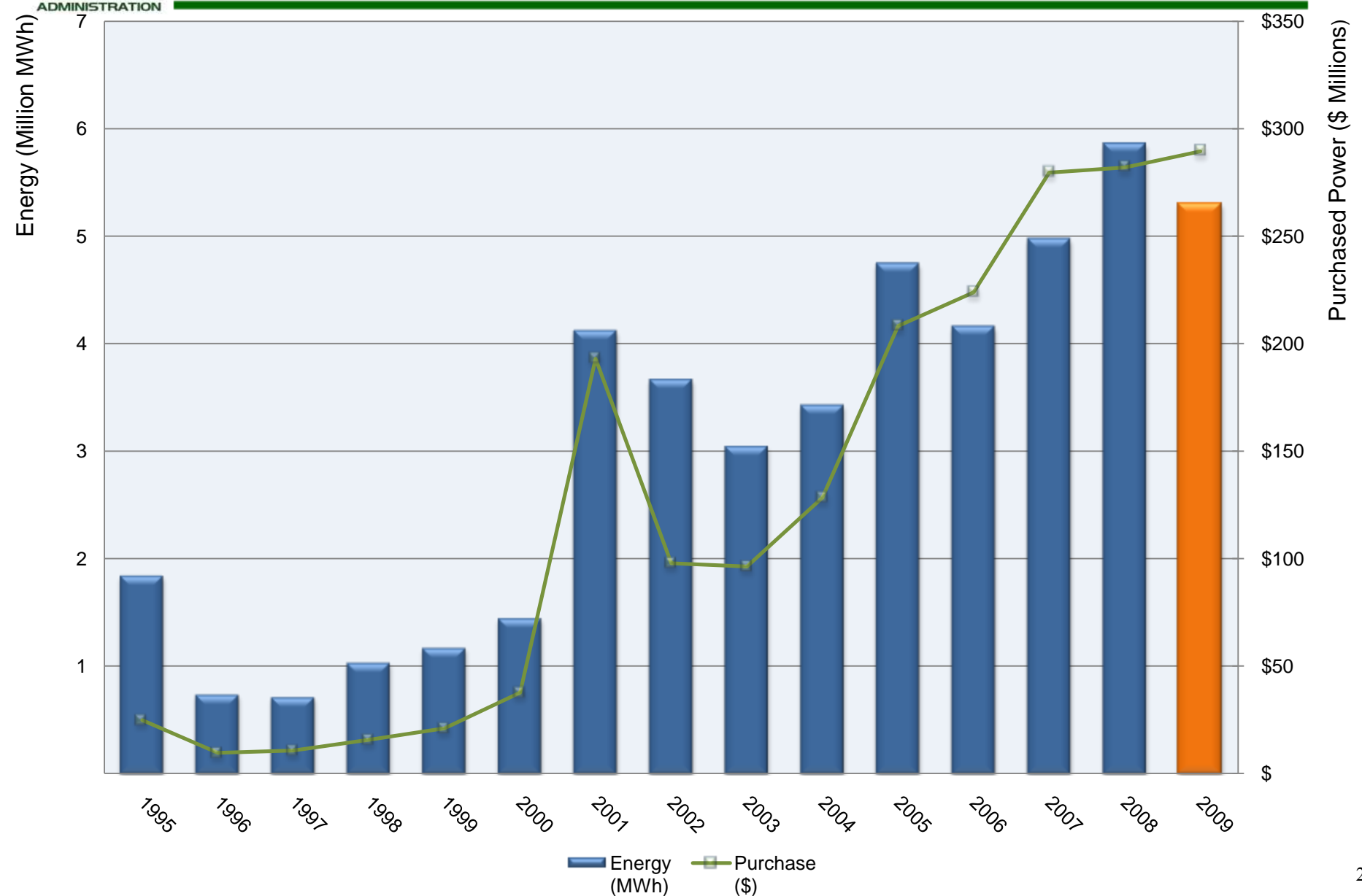


# LAP Power Purchases and Sales



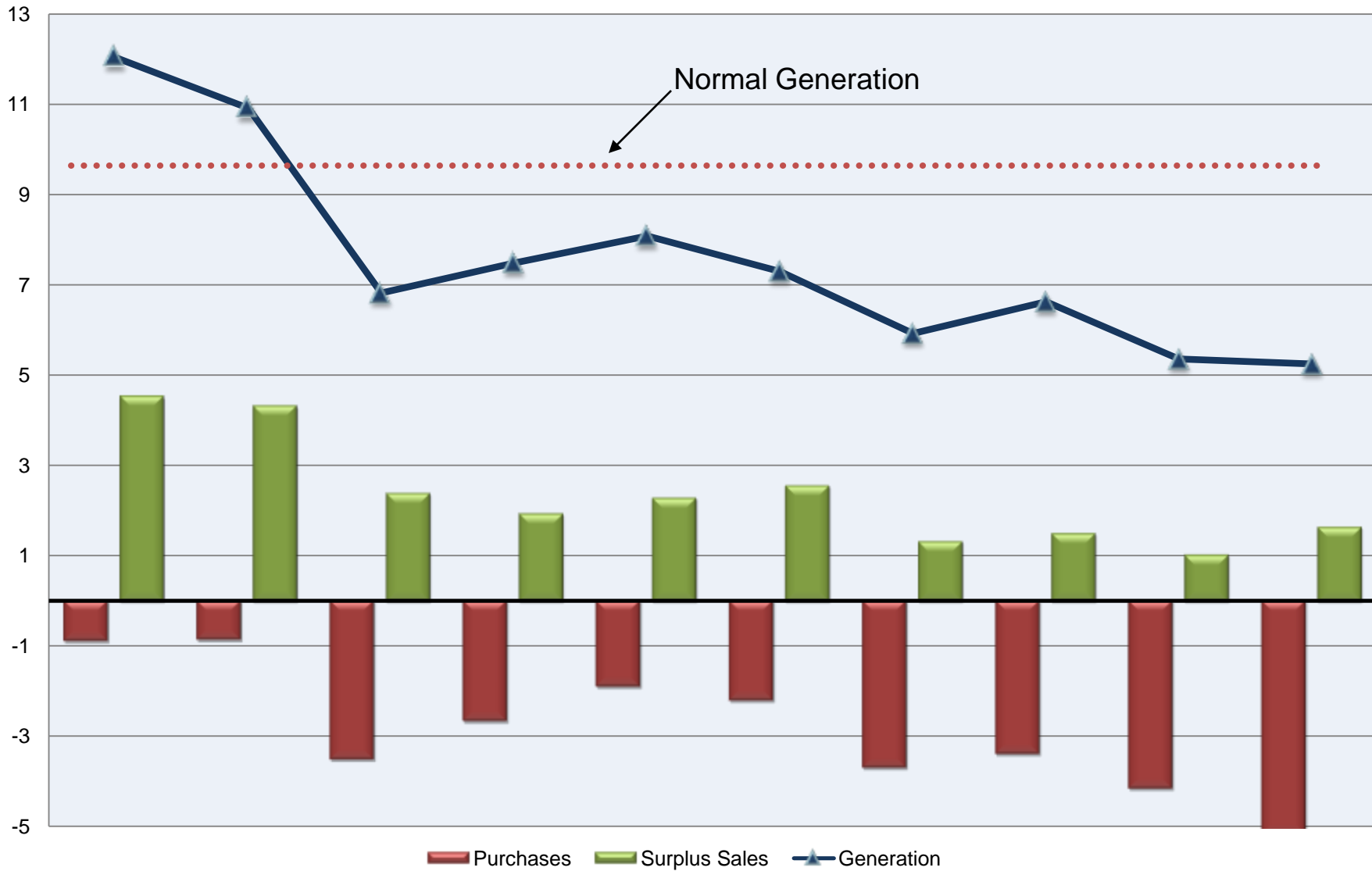
# Pick-Sloan Purchase Power Expense

# P-SMBP Firming Purchases (Energy and Expense)



# P-SMBP--Eastern Division Firming Energy

Energy Million (Mwh)

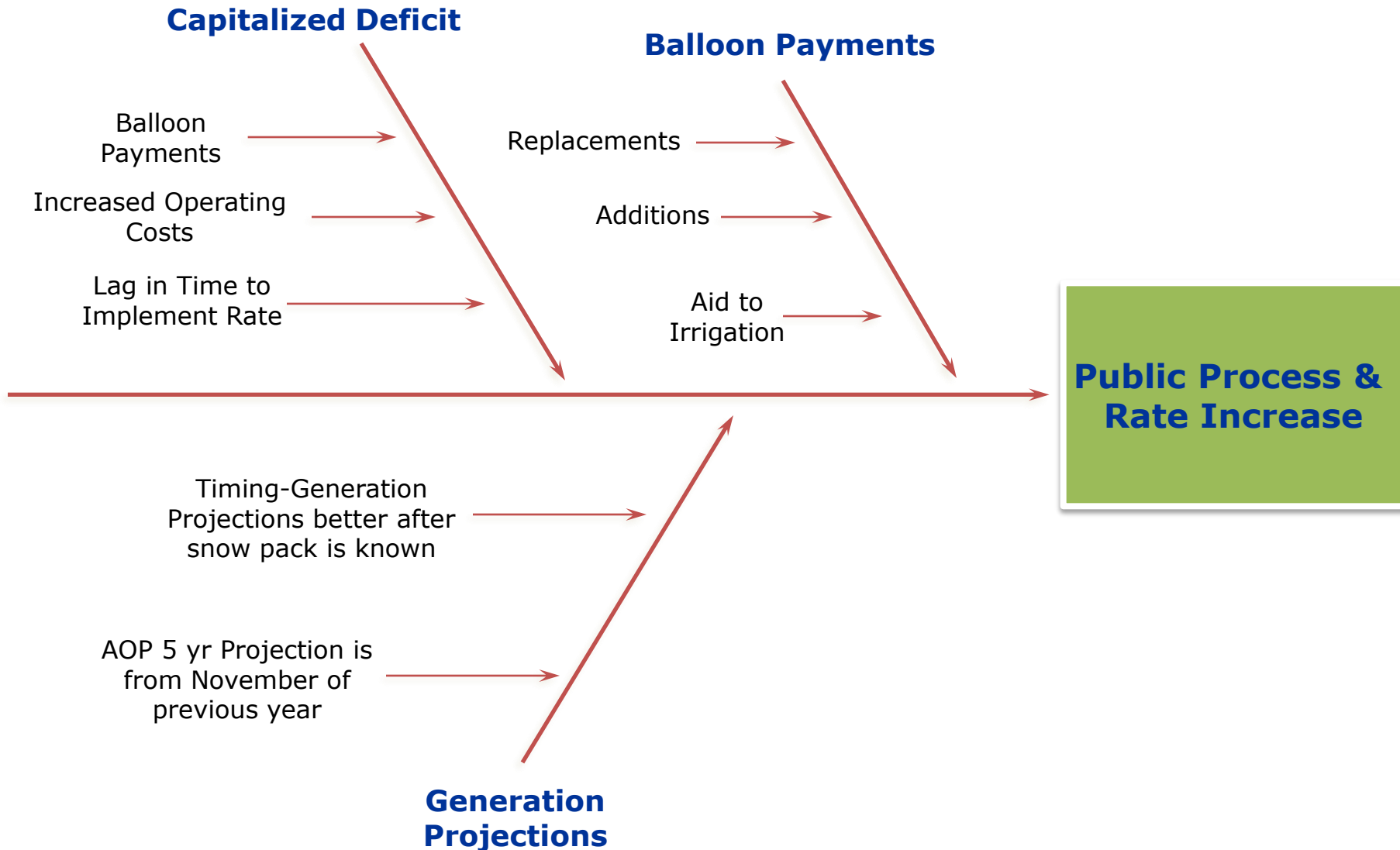


# Pick-Sloan Repayment

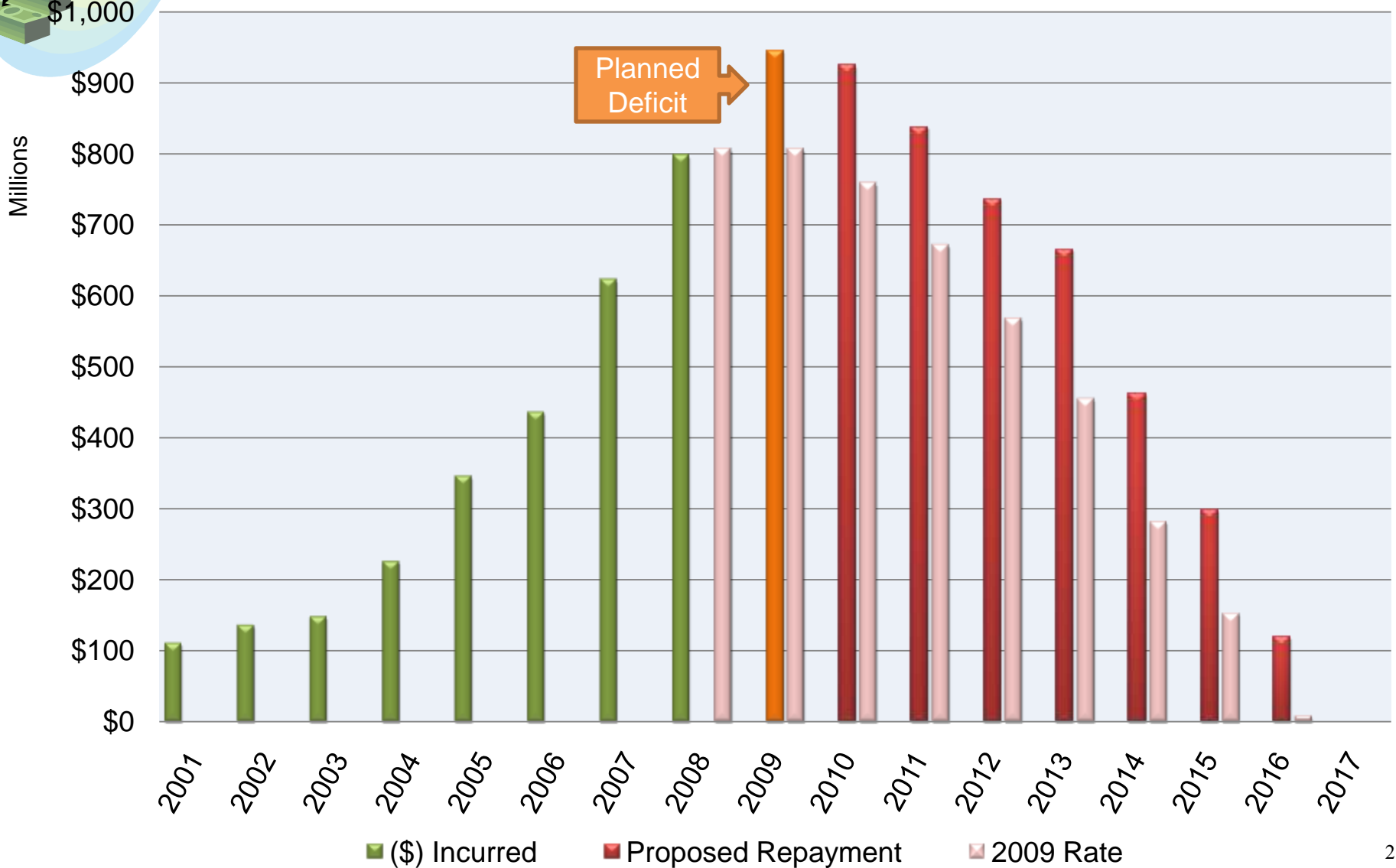


- Current Cumulative Deficit is \$797.3 M
- Projecting additional 2009 deficit of \$147 M
- Projected Cumulative Deficit of \$944.5 M
- First Drought Deficit payment coming due in 2011
- Includes updated water projections and 2010 work plans
- Pick-Sloan Composite Rate solved at 33.54 mills/kWh
  - 3.91 mills/kWh increase
  - up from 29.63 mills/kWh due to updated water projections and prices
- 2008 historical data un-audited

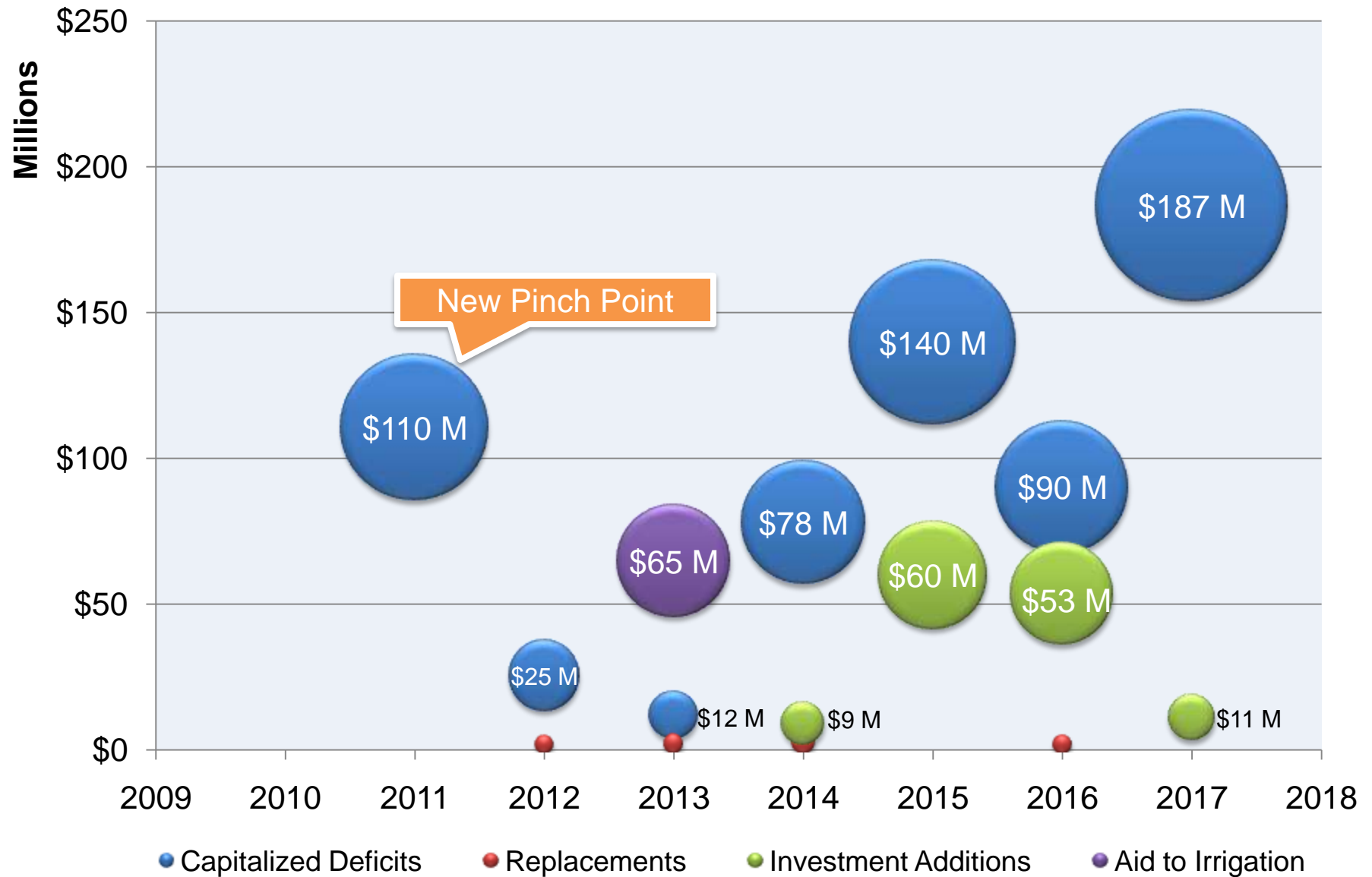
# Impacts to Rate



## Cumulative Drought Deficit

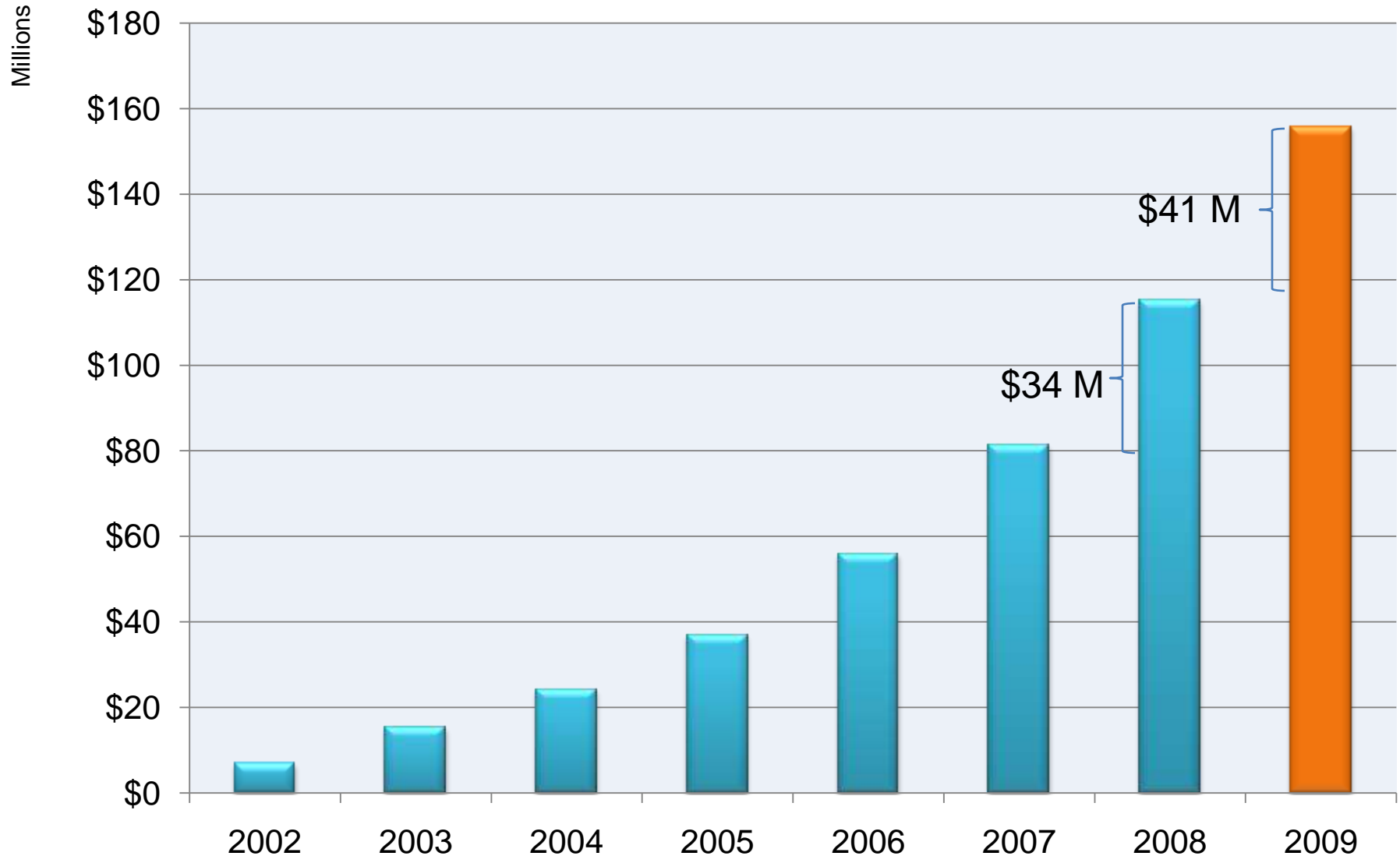


# P-SMBP Required Payments



# P-SMBP

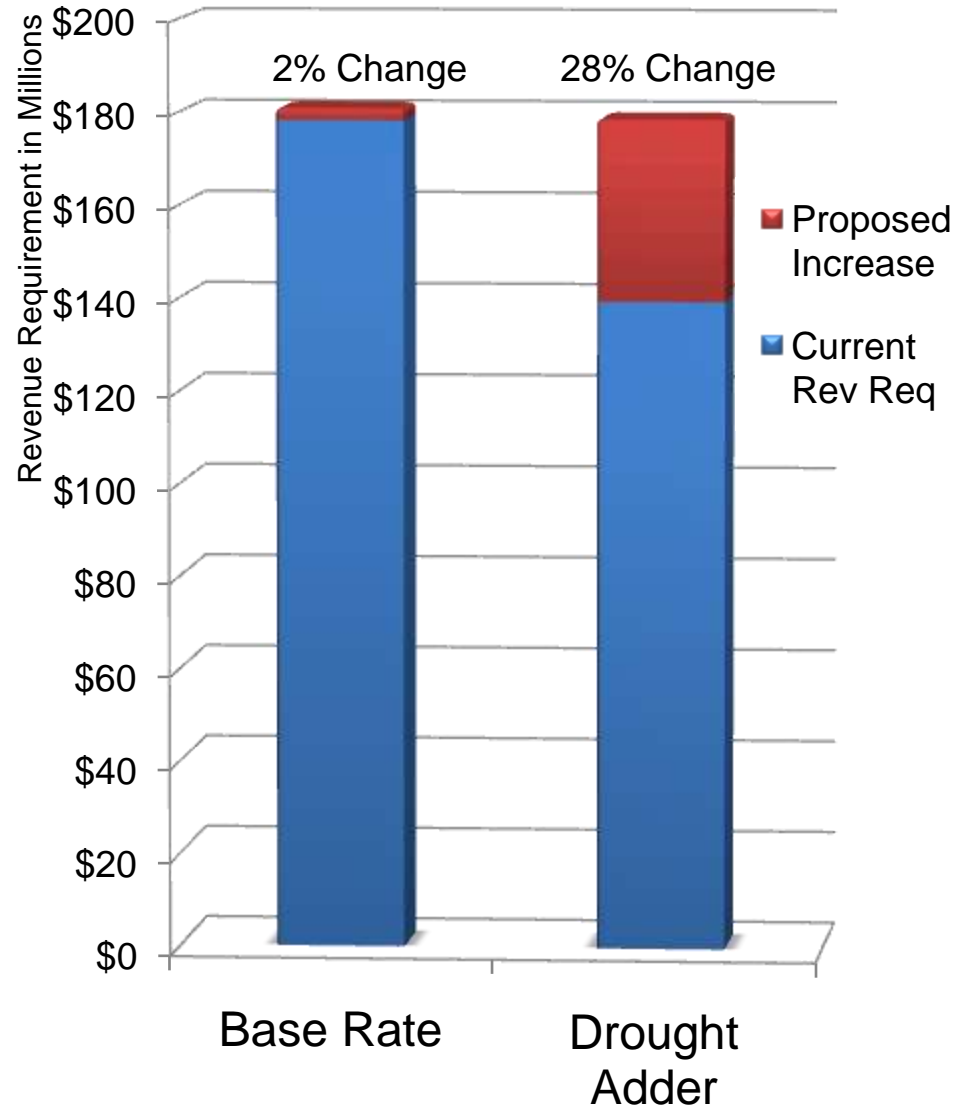
## Cumulative Interest Deficit



# Pick-Sloan Rate Components

## Current Rate vs. Proposed Change

- Rate solved for 2010
- P-SMBP composite 33.54 mills/kWh is a 13% increase
- 2010 drought adder includes estimate for FY09 and FY10 purchase power
- Shows need to adjust drought adder above 2 mills/kWh cap
- Drought Adder increase is 3.66 mills/kWh



# Pick-Sloan Proposed 2010 Rate Adjustment

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	Composite Rate (mills/kWh)	Percent Increase	Pick-Sloan Firm Power Rev Req (\$ millions)
Current Rates Effective February 1, 2009	29.63	21%	\$317.9
Proposed Rates Effective January 1, 2010	33.54	13%	\$359.9

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# Fry-Ark Repayment



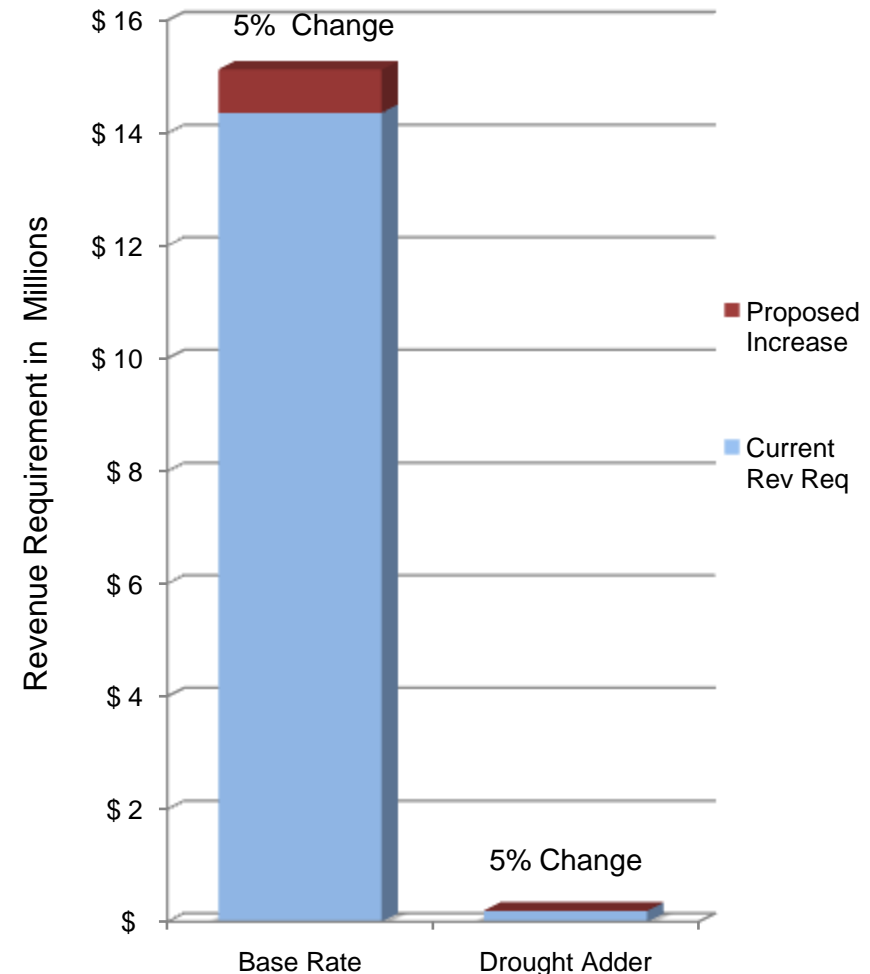
- Includes BOR and Western 2010 work plans
- Includes most probable generation projections as of March 2009 for FYs 09-10
- Includes \$5 million of annual transmission expense through 2024 (end of the marketing plan)
- No deficits
- 2034 Pinch-Point
- Solved with a Revenue Requirement of \$15.3 M (\$783 thousand or 5% increase)

- Transmission Expense associated with Mt. Elbert
  - Current contract may expire September 30, 2010
  - Previous PRSs have projected \$4 million of annual transmission expenses only through 2013 (the end of the contract term (2010) plus 3 additional years)
  - Various options are being studied
  - Current estimate of costs for transmission and ancillary services is \$5 million per year
  - We have included these costs through the end of the marketing plan (2024), 11 additional years
  - Goal is to eventually include these costs through the end of the study

# Fry-Ark Rate Components

## Current Rate vs. Proposed Change

- Rate solves for 2010
- Fry-Ark Revenue Requirement is \$15.3 M a 5% increase
- Base includes future transmission expense
- 2010 Drought Adder includes estimate for FY09 and FY10 purchase power



# Pick-Sloan and Fry-Ark Rate Components

**Drought Adder**



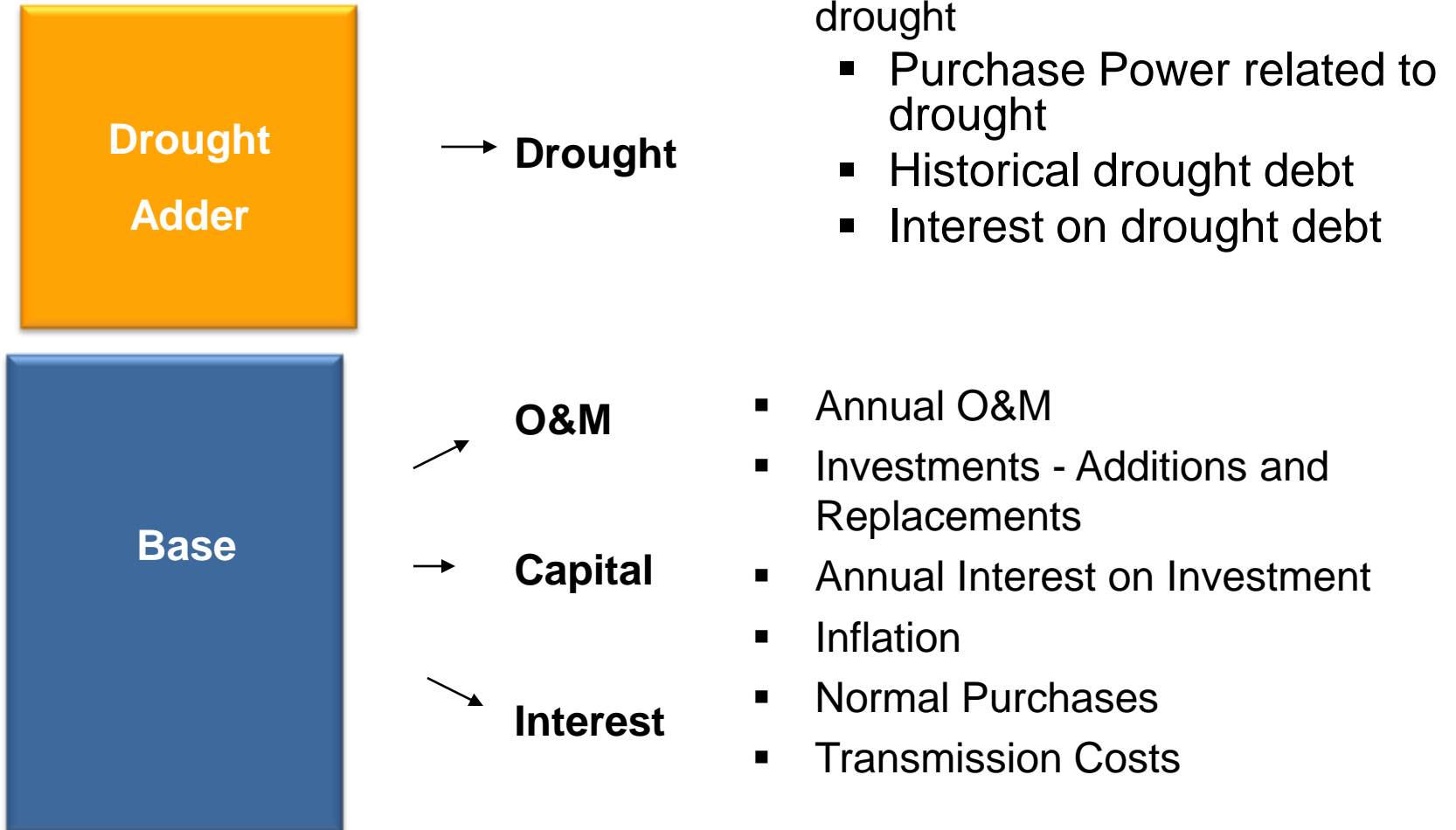
**Base Rate**

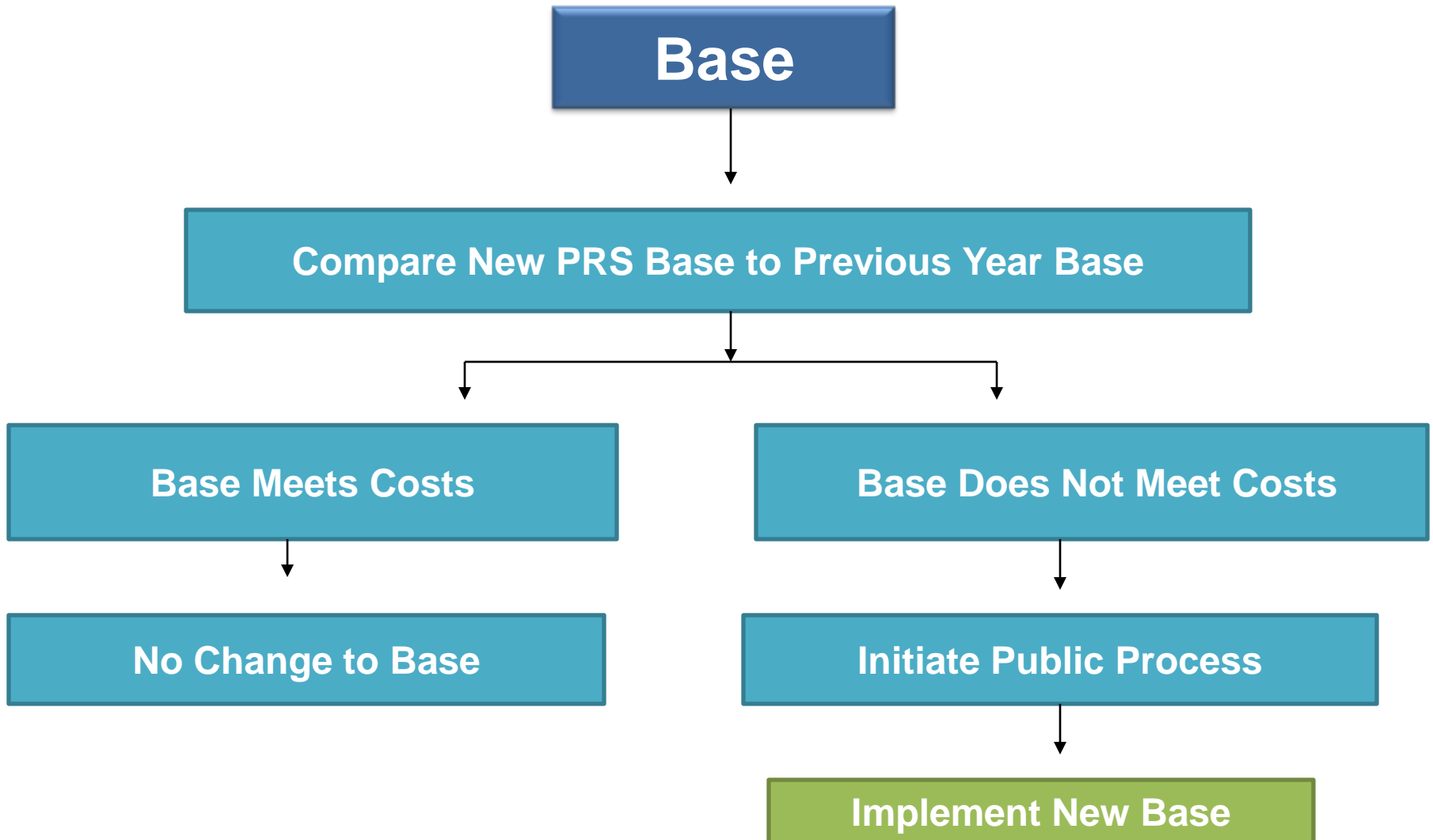
Adjusted Annually by Formula  
or by Public Process

Adjusted only by Public  
Process

# Rate Component Overview

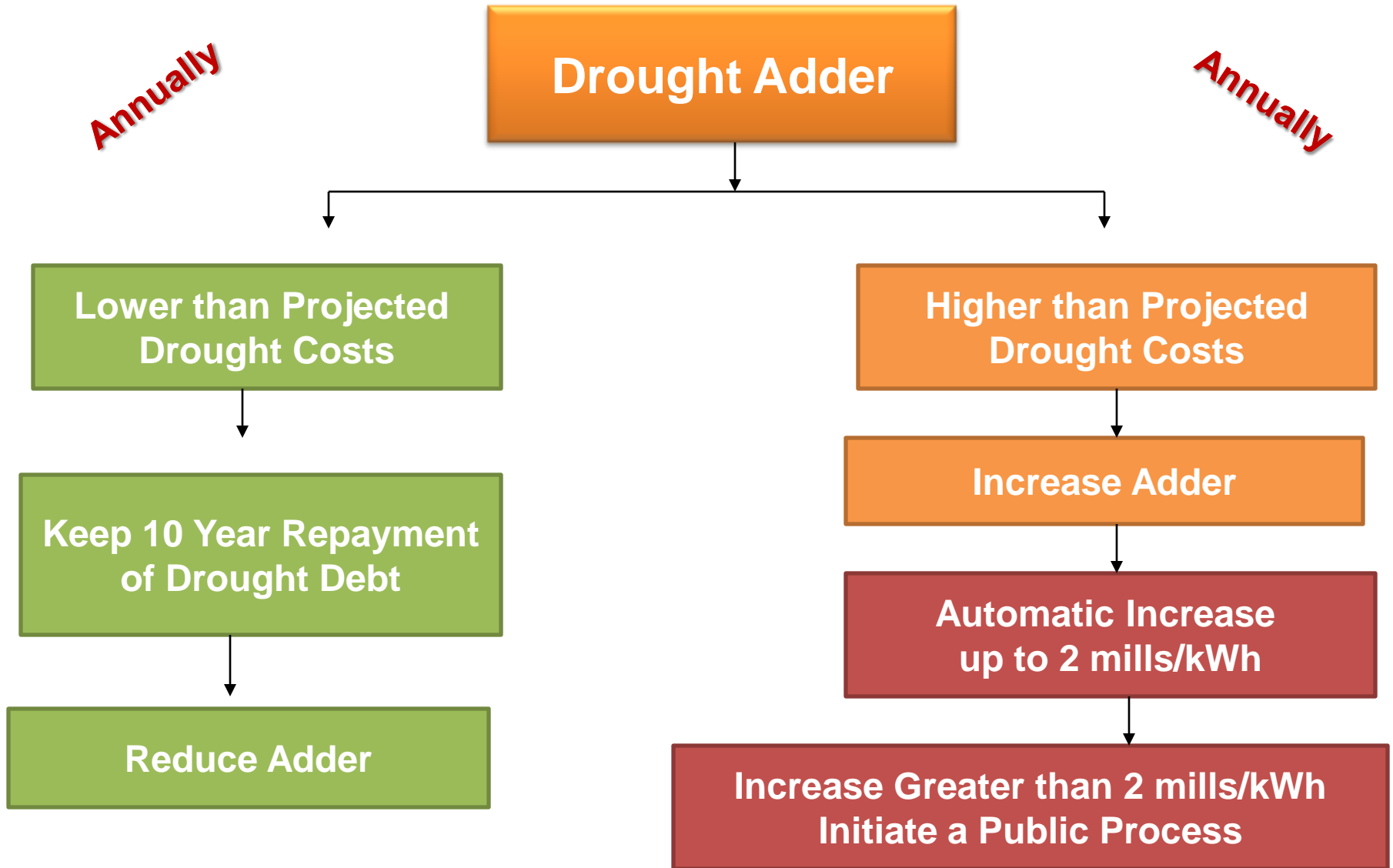
(Pick-Sloan & Fry-Ark)





# Drought Adder Methodology

(Pick-Sloan & Fry-Ark)





# Pick-Sloan ED Rate Design and 2010 Rate Adjustment Proposal

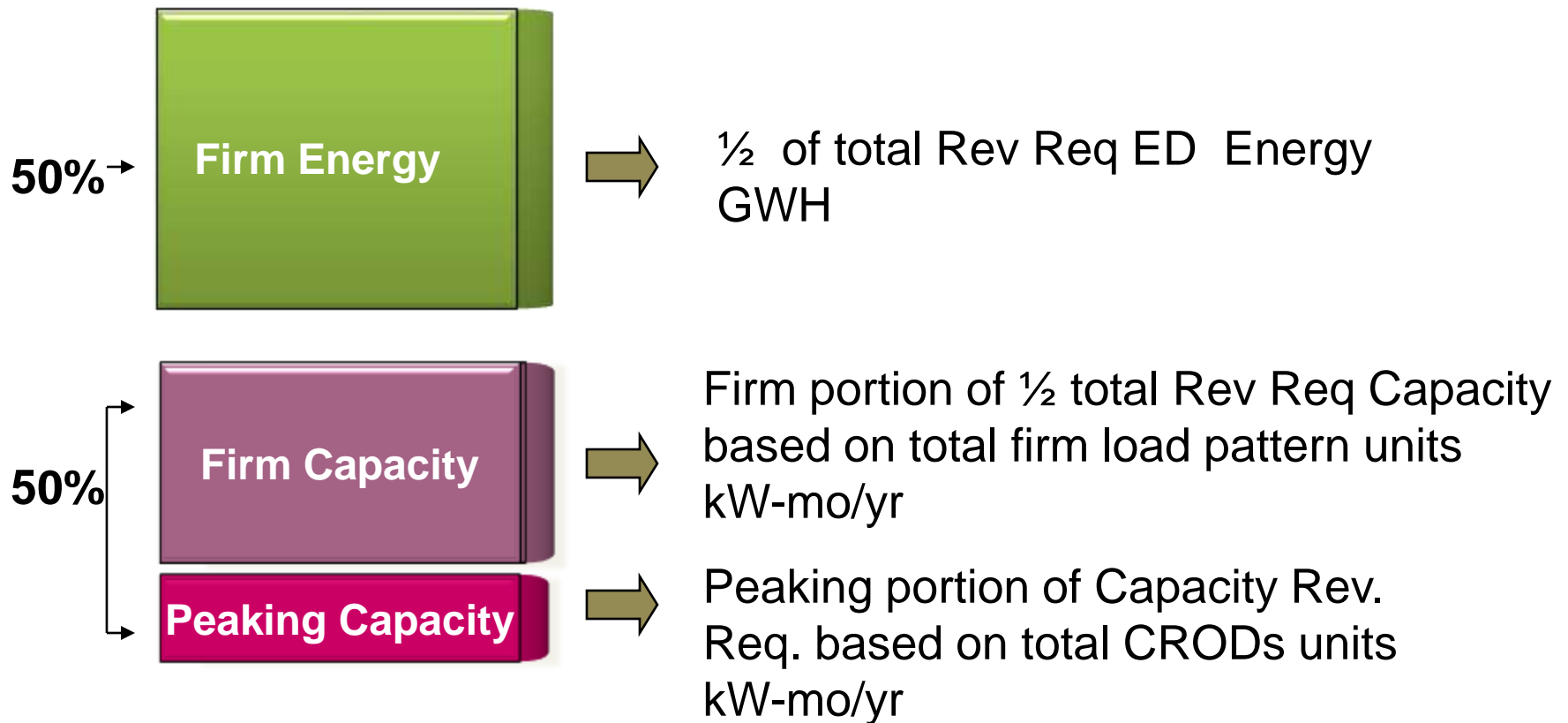
- Firm capacity based on Metered Capacity Billing Units of 17,876 MW-mo/year
- 8,742 GWH of Firm Energy
- 356 MW of Peaking capacity recovered in the 50/50 capacity and energy split
- Peaking capacity based on CROD billing units of 4,272 MW-mo/year

Eastern Division rate is 50/50 design where 50% of the revenue is recovered from the capacity rate and 50% is recovered from the energy rate:

Firm Power Rev Req	\$ 290.7 Million
Peaking Revenue	\$29.5 Million
5% Discount	<u>\$12.6 Million</u>
Gross Revenue Req	\$ 332.8 Million

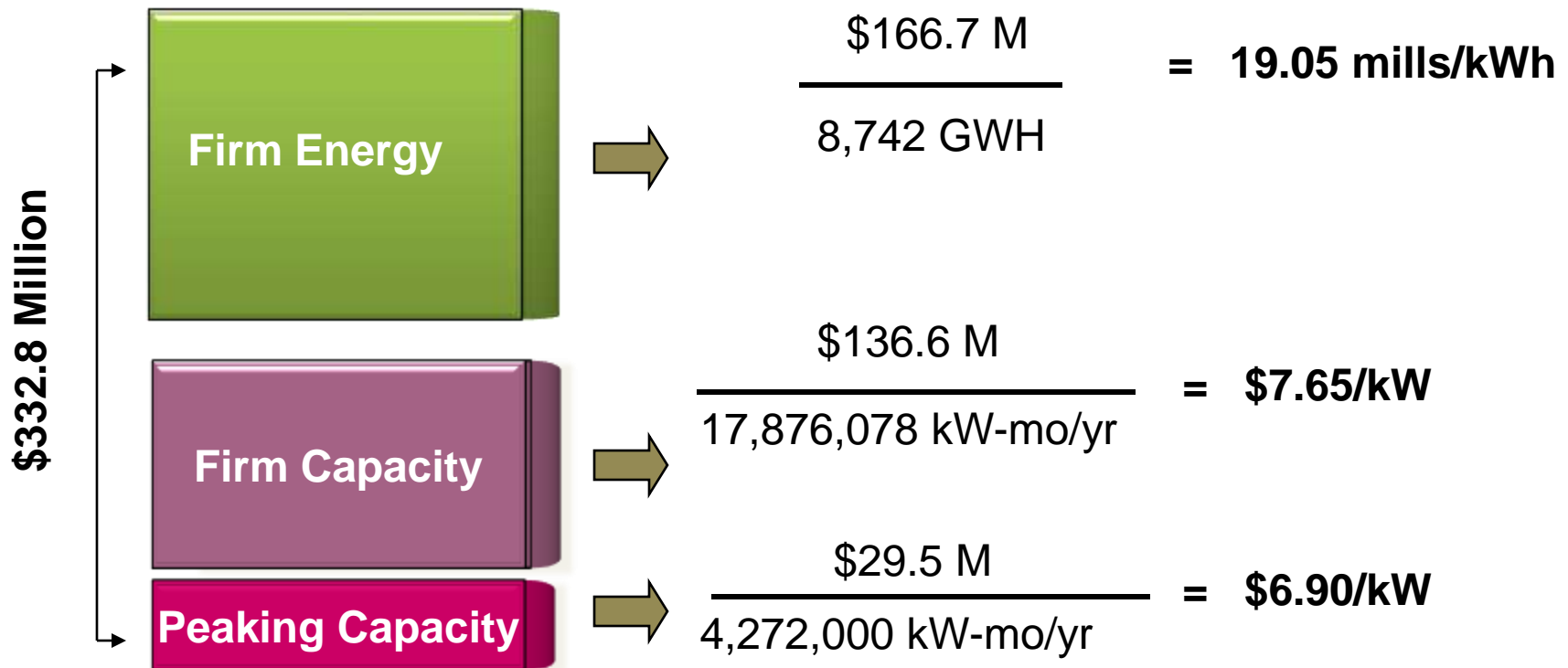
# Eastern Division Rate Design

## 50/50 Capacity/Energy Split



# Proposed ED Rate Design

## 50/50 Capacity/Energy Split



Note: Nickel rule for capacity rounding

# P-SMBP Eastern Division

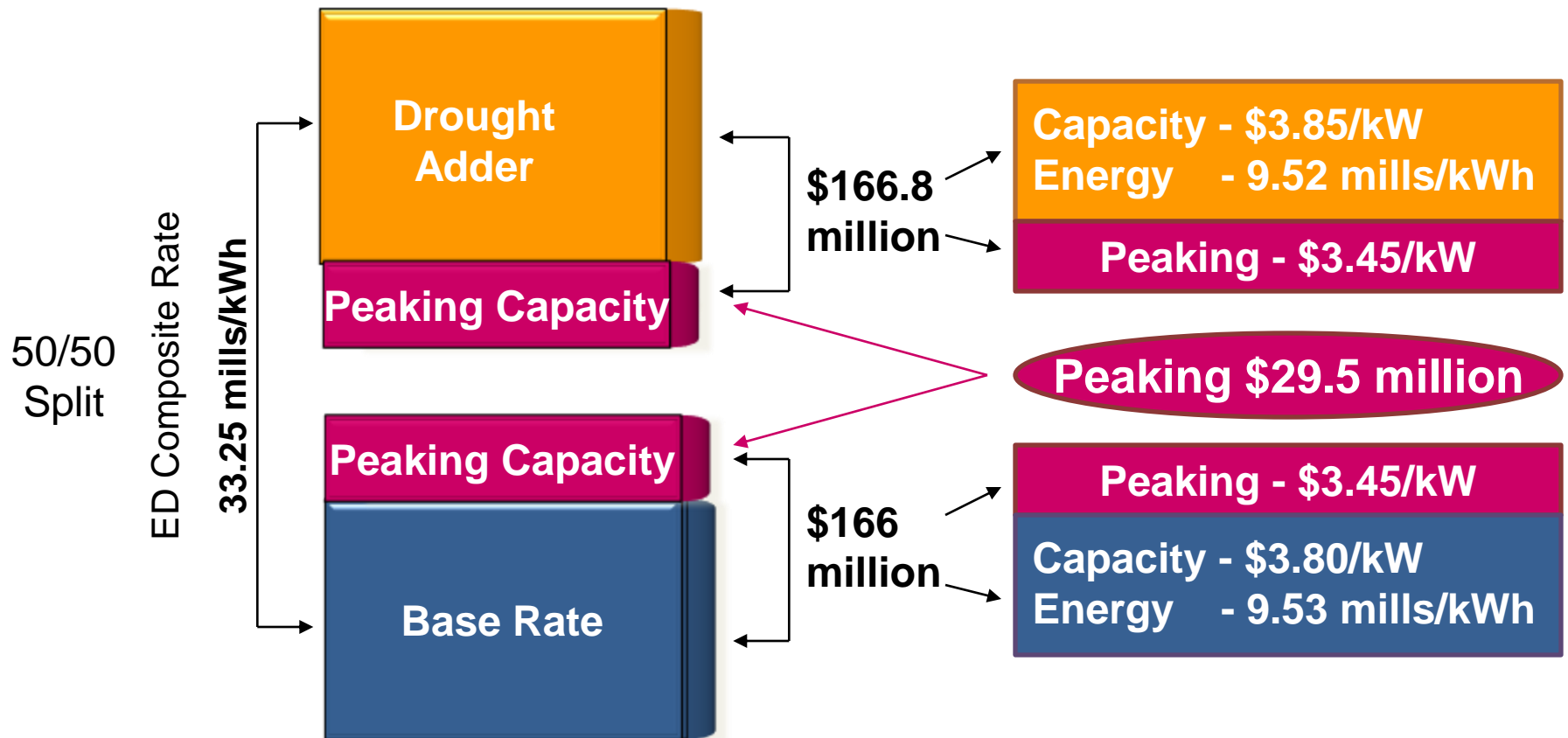
**Peaking - \$6.90/kW**

**Firm Capacity - \$7.65/kW**

**Firm Energy - 19.05 mills/kWh**

**\$332.8 Million**

**Revenue Requirement**



# ED Proposed Rates

Firm Power Service	Current Rates Effective February 1, 2009	Proposed Rates Effective January 1, 2010
P-SMBP-ED Firm + Firm Peaking Rev Req	\$283.0 million	\$320.2 million
P-SMBP-ED Composite Rate	29.34 mills/kWh	33.25 mills/kWh
Firm Capacity	\$6.80 kW-month	\$7.65 kW-month
Firm Energy	16.71 mills/kWh	19.05 mills/kWh
Firm Peaking Capacity	\$6.20 kW-month	\$6.90 kW-month
Firm Peaking Energy <sup>1/</sup>	16.71 mills/kWh	19.05 mills/kWh

<sup>1/</sup> Firm peaking energy is normally returned. This will be assessed in the event firm peaking energy is not returned.

# Pick-Sloan Proposed 2010 Rate Adjustment

	Composite Rate (mills/kWh)	Percent Increase	Pick-Sloan Firm Power Rev Req (\$ millions)	Western Division Firm Rev Req (\$ millions)	Eastern Division Firm Rev Req (\$ millions)	Eastern Division Firm Plus Peaking Rev Req (\$ millions)
Current Rates Effective February 1, 2009	29.63	21%	\$317.9	\$61.4	\$256.5	\$283
Proposed Rates Effective January 1, 2010	33.54	13%	\$359.9	\$69.2	\$290.7	\$320.2



# Loveland Area Projects (LAP) Rate Design and 2010 Rate Adjustment Proposal

- Fry-Ark and Pick-Sloan-WD were operationally and contractually integrated in 1989
- Pick-Sloan-WD is financially still a part of the Pick-Sloan Project
- A separate PRS is prepared annually for each project
  - Fry-Ark is completed by the Rocky Mountain Region
  - Pick-Sloan is completed by the Upper Great Plains Region with input from the Rocky Mountain Region for Pick-Sloan-WD

Revenue Requirements from both projects are combined to develop the LAP revenue requirement:

Fry-Ark	\$ 15.3 Million
Pick-Sloan WD	<u>\$ 69.2 Million</u>
Total LAP	\$ 84.5 Million

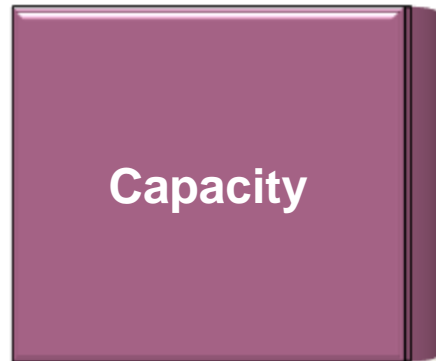
LAP Rate is a 50/50 design

- 50% of the revenue is recovered from the energy component, which is based on the annual contracted energy
- 50% is recovered from the capacity component, which is based on a monthly billing of the seasonal contract rate of delivery

## 50/50 Energy/Capacity Split



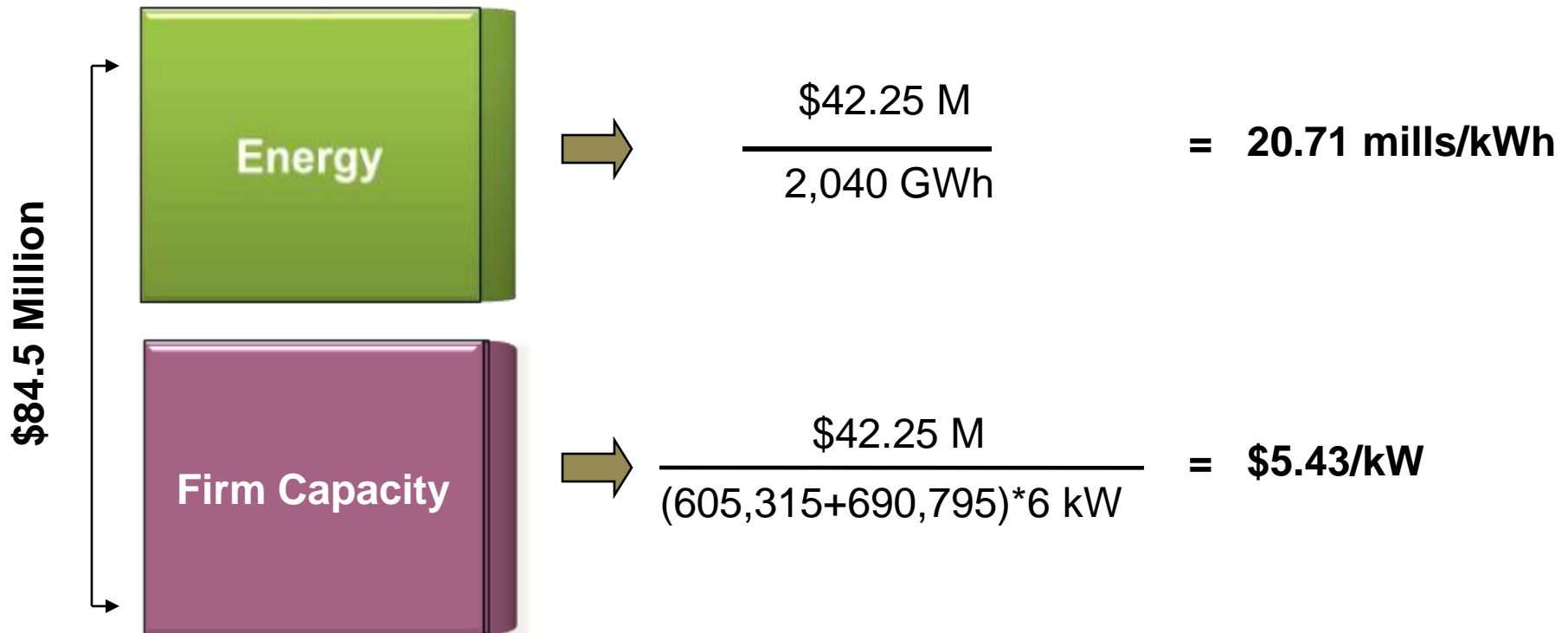
50% of total LAP Rev. Req.



50% of total LAP Rev. Req.

# Proposed LAP Rate Design

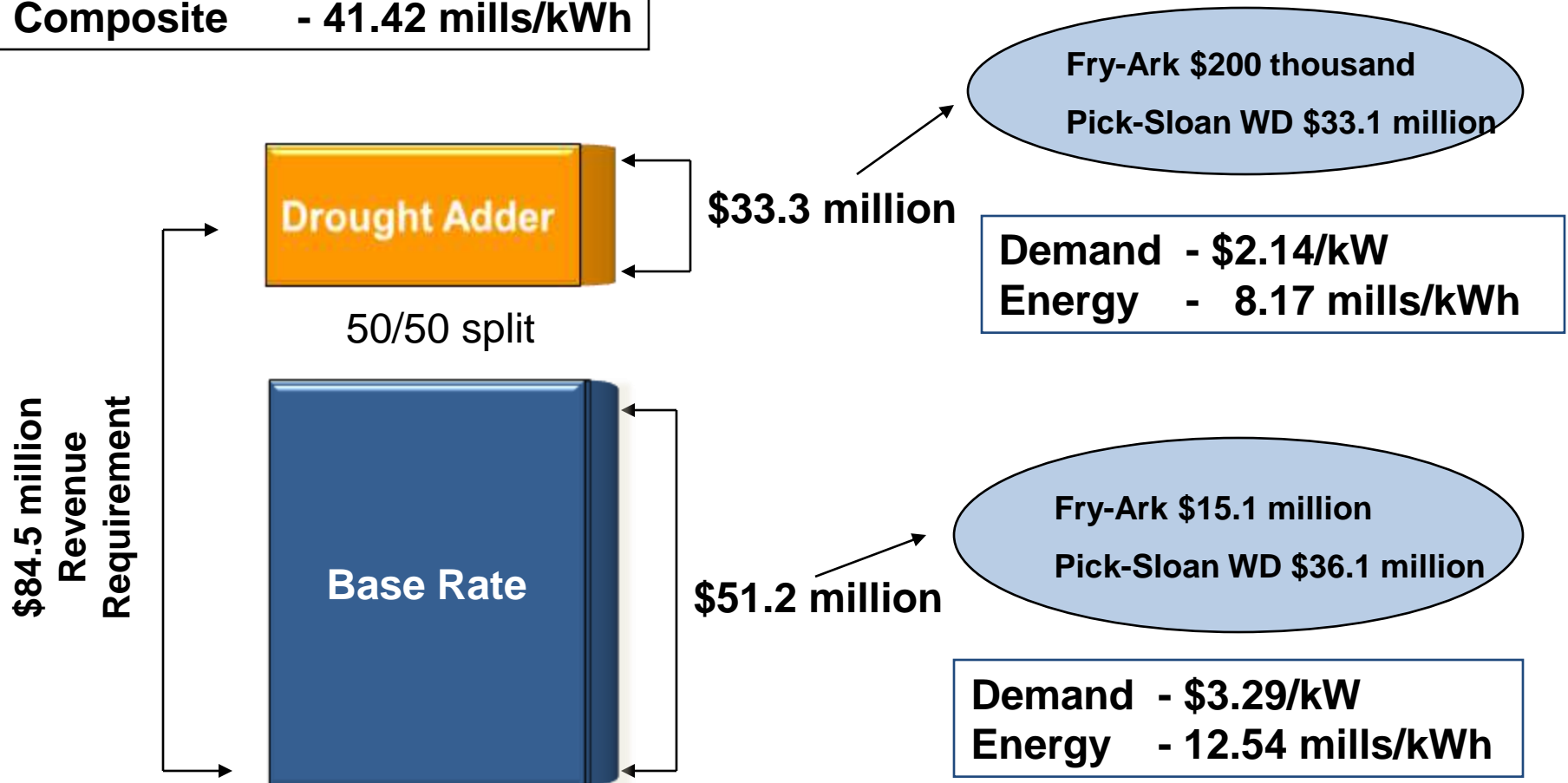
## 50/50 Energy/Capacity Split



# Proposed LAP Rate Design (Base and Adder)

## Total Charges:

**Firm Demand - \$5.43/kW**  
**Firm Energy - 20.71 mills/kWh**  
**Composite - 41.42 mills/kWh**



# Proposed LAP Rates

Firm Electric Service	Current Rates Effective February 1, 2009	Proposed Rates Effective January 1, 2010	Increase	Percent Increase to LAP
Fry-Ark Rev Req	\$14.5 M	\$15.3 M	\$783 k	1%
PS-WD Rev Req	\$61.4 M	\$69.2 M	\$7.8 M	10%
Composite Rate	37.24 mills/kWh	41.42 mills/kWh	4.18 mills/kWh	11%
Firm Energy	18.62 mills/kWh	20.71 mills/kWh	2.09 mills/kWh	11%
Firm Capacity	\$4.88/kW	\$5.43/kW	\$0.55/kW	11%

- Combined Public Process
- Separate FRNs
- P-SMBP--ED
  - 13% increase
- LAP
  - 11% increase



# Tentative Public Process Schedule

(P-SMBP-ED and LAP)

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- Informal Meetings
  - April 15<sup>th</sup>                      Sioux Falls, SD
  - April 16<sup>th</sup>                      Northglenn, CO
- Public Process (90 Days)
- Federal Register Announcement
  - Early July 2009
- Information Forums followed by Comment Forums
  - August 18<sup>th</sup>                      Northglenn, CO
  - August 19<sup>th</sup>                      Sioux Falls, SD
- Close of Comment Period
  - Early October 2009 (90 Days after the FRN is Published)
- Proposed Implementation of New Rates
  - January 1, 2010

Materials will be posted on Website:

<http://www.wapa.gov/rm/ratesRM/2010/default.htm>

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Rocky Mountain Region

PO Box 3700

Loveland, CO 80539

Materials will be posted on Website:

<http://www.wapa.gov/ugp/rates/2010firmrateadjust>

Contact:

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Billings, MT 59107-5800

# Discussion

# Supplemental Slides

# FY09 - FY10 COE Only Generation

